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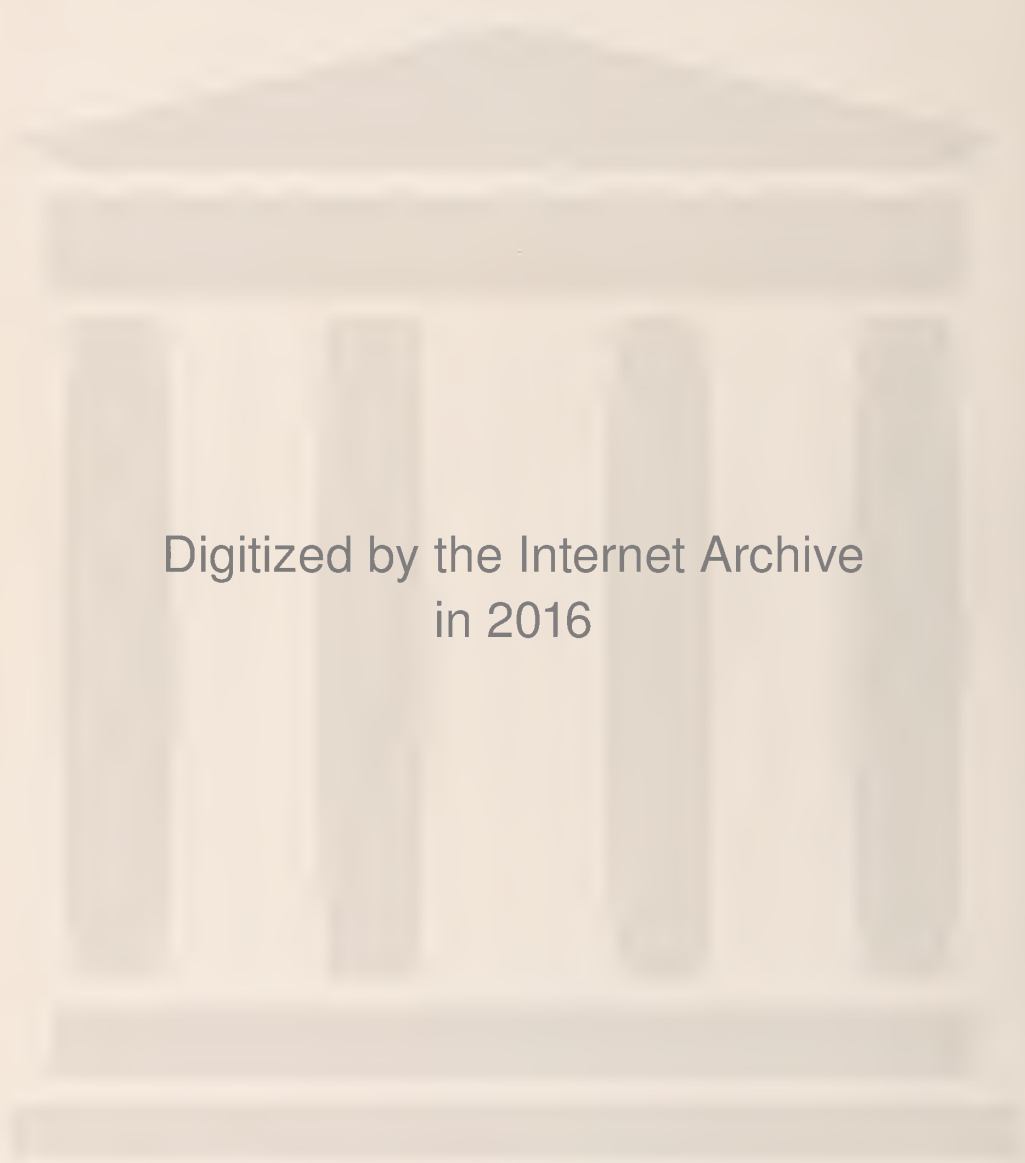
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the **JOURNAL**  
OF THE MEDICAL SOCIETY OF NEW JERSEY

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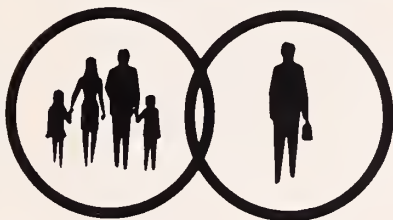
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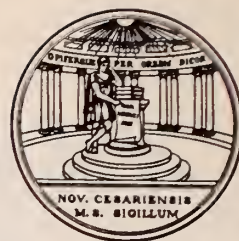
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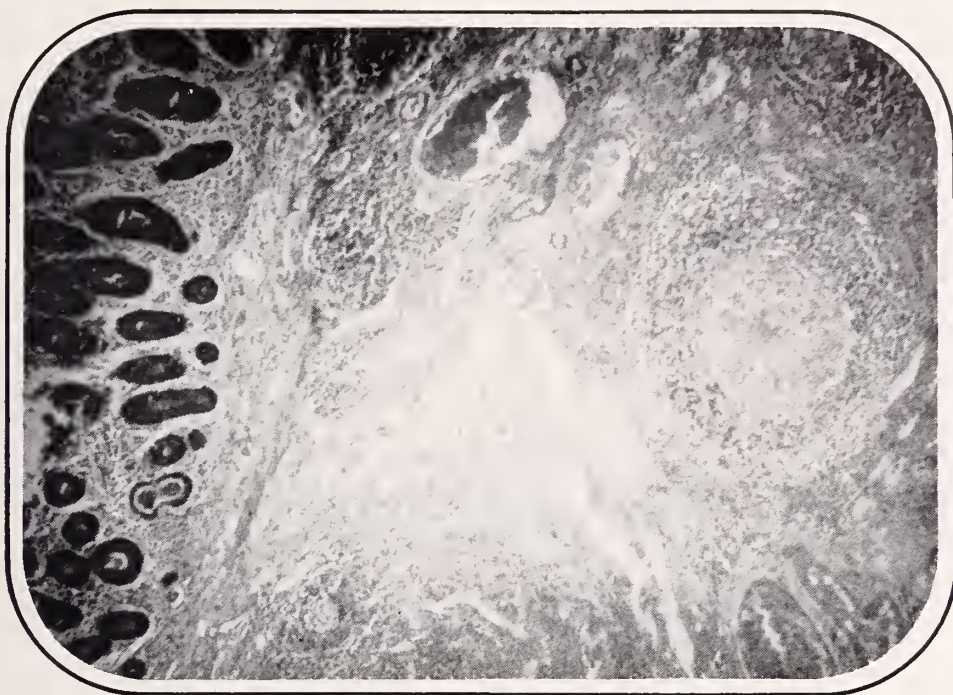
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# EDITORIALS

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## Murder and Mayhem: The Weekly Agenda

The regular recreational fare to which both children and adults are exposed, as passive listener-viewers, continues to present a variety of violence that tends to overtax the mind. Since our present generations are so used to the savagery of war, revolution on and off campus, murder and muggings regularly reported by our news media, with almost instant replay of each sordid event, adults have tended to become reactively immune. Yet physicians, psychologists, and parents are concerned about the conditioning of children to indulge in violent behavior by exposure to such explicit violence. One mother, whose three and five year old sons were dawdling over breakfast, ordered them to remain at the table until they ate all their food. From the next room, she heard the older one say, "Let's gun her down." The younger replied, "No, guns are bad! Let's just knock her down."

In any season, one can be visually exposed to execution by gun or by decapitation, political assassination by dagger or poison, individual and mass suicide, individual and mass murder, fratricide, patricide, and immolation by burning. And this only scratches the surface!

Lest you believe this to be another routine, condemnation of television and its harmful "violence-breeds-violence" effect on youth, let me hasten to say it is not. It is a different pastime of which I write — grand opera.

The magnificent "Tosca" includes torture for political information, assassination of Scarpia by dagger, a "double-cross" execution of Cavaradossi by a firing squad, and a suicidal leap by Tosca from a parapet. "Simon Boccanegra" was the victim of political assassination by poison, while Puccini had his heroine decapitate would-be lovers in "Turandot." "Il Trovatore" includes immolation by burning of a

suspected witch, suicide by poison, and fratricide. In "Les Troyens," Berlioz revealed mass suicide of women by sword to avoid capture and rape. Blindness by ocular enucleation was self-inflicted by Oedipus after the realization of his commission of patricide and incestuous marriage, and a similar fate was imposed on Samson by his enemies. Both operas were characterized by suicide, including the self-destruction of Samson along with the murder of his foes. When Salome was spurned by John the Baptist, she had him decapitated and then sensuously kissed the lips of his bodiless head!

The list of mutilations of body and spirit goes on and on and yet these terrible events are only incidental to the grandeur of the great musical dramas which are a permanent part of our world heritage. The difference between television with its verisimilitude and the meretricious opera is quite clear. In television, the violence seems to be the message, while in opera it is an incidental part of the plot. The music, the voices, the orchestra, the conductor, the staging, and the costumes have an overwhelming influence on the audience which is spiritually uplifting.

When Madam Butterfly wraps a sash around her mouth to stifle a cry and commits traditional seppuku, while her mixed-breed son plays quietly on the opposite side of a screen, much of the audience figuratively dies along with her, accompanied by that beautiful Puccini music. Contrast this to the usual gunfight between the "narc officer" and the "pusher" with acceptable but forgettable attendant music.

Producers of television may learn something from their theatrical ancestors of a hundred or more years ago. The "medium is the message" in grand opera and the message is beauty. This is certainly not the case in television. If the producers cloaked their violence in a mantle of language, ideals or inferences which might stimulate the recipient to be a better person, to more clearly understand his fellow man and his frailties, or in some way to demonstrate qualities of artistic merit, it might prove a more constructive force to modify behavior rather than to encourage children to "knock mother down." In the meantime, we physicians might direct our young patients toward an appreciation of

musical and dramatic theatre, including grand opera, as an alternative to the daily viewing of mindless, perspicuous brutality. A.K.

## A Crisis of Identification in Medicine

Adolescents are not the only ones who must face and deal with a "crisis of identification." In a sense, adults must make a readjustment, at some point in life, from a status of independence to one of relative dependence. This is the antithesis of the pre-adult whose equation moves forward in an opposite direction. The transition, however, may be no less traumatic nor turmoil-free, and the goal no more accessible than the teenager's.

To be more specific, the individual physician, the small group practice, and organized medicine itself is presently suffering with a "crisis of identification." In days long past, the physician knew who he was, how he got there, and what he was doing. He knew to whom he was responsible, and why. To a large degree, the practitioner answered mainly to his conscience, Hippocratic Oath, or Super-ego. He depended on an "internal recognition of what is right and wrong regarding his actions and motives." Surely, he had external guidelines (role models) such as professors, senior physicians, and respected colleagues. But beyond this and the simply understood exigencies of law, he often relied solely on a small voice or an inward monitor which helped him decide on the moral quality of his actions and motives.

Slowly, but inexorably, the situation changed. New elements began to appear on the horizon and enter the picture. Hospital accreditation boards and national medical organizations introduced tissue committees, medical records committees, and a host of similar candidates for the physicians' Board of Ego Directors. Third parties (government, Blue Cross and Blue Shield Plans, commercial carriers, labor union representatives, and others) were joined by fourth parties (Ralph Naders and other consumer advocates, malpractice attorneys, euthanasia advocates, and political candidates) to change the

adolescent tranquility of the old-time physician.

New epithets ("cottage industry"), new rules (physician fee profiles, mandatory continuing education, relicensure), new doctor-patient-hospital relations (certification for hospitalization, releases for treatments, defensive practice methods, HMO's, Medical Care Foundations) and new evaluations (utilization review, PSRO, Peer Review) became a reality.

Some physicians have taken a page from the masturbative adolescent and turned inward, by turning away from new trends. This ostrich-technique is simply a means of biding time until age solves all problems. Others assumed new roles as they appeared (as easily as the chameleon changes color) and solved the problem of transition. The vast majority of physicians, in fact, the medical profession itself, has not yet adjusted. Physicians are asking: "Who am I?" "Where am I going?" "What is the *modus operandi*?"

This is no easy transition, for it is a unique demand on the medical profession. No other profession — neither law, education, engineering, the ministry, nor science — has had such tumultuous influences. How can this boulder-strewn pathway be traversed? Answers are not readily available. In the long run, new decisions and modulations may come easier if we renew our faith in our fundamental strengths. Each problem and each determination and each new demand may be met by the individual physician, after consultation with his own inward monitor. This small voice may give him the faculty to decide on the ethical and moral quality of his own actions and motives in relation to the new challenges as surely as it did in the days of Hippocrates. A.K.

### Where We Stand

*Where We Stand*, a pamphlet delineating MSNJ's official position on medical and health issues, is available upon request from the Public Relations Office, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.

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# ORIGINAL ARTICLES

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*Monitoring the high risk pregnancy continues into the postpartum period. Specific observation and treatment which is directed toward the newborn, with special attention to SGA and LGA infants, and anomalous infants, may pay dividends. Evaluation of the stillborn infant, the placenta, and umbilical cord, as well as maternal complications, are likewise essential.*

---

## Monitoring of the High Risk Pregnancy: Part III, Postpartum

---

**James P. Thompson, M.D./Newark\***

The concept of monitoring the mother and infant in the immediate post-partum period is not as well delineated nor as widely practiced as monitoring during pregnancy and labor. Obstetric horizons have broadened immeasurably in the past decade and they now extend through management of the process of parturition to include an understanding of the care required by a newborn in the delivery room. The basic tenets of perinatology espouse immediate care for the newborn but do not designate who is to render this care. In the ideal situation, a neonatologist or pediatrician is present for the delivery of high risk pregnancies. In the absence of such qualified personnel in the delivery room, it behooves all obstetricians to be familiar with pathologic conditions that require immediate intervention as well as the basic needs of all newborns. Irreparable harm can come to an infant who is neglected in this critical time period despite proper conduct of the pregnancy and labor.

The cumulative effects of adverse events in a pregnancy already at risk are well known. Attempts to correct these deficiencies, especially in the mother, should begin early in the post-partum period. The course of the recent pregnancy and delivery are fresh in the obstetrician's mind and the patient is liable to cooperate more fully at this time. Ideally, risk factors are better corrected during the interconceptional interval than during the course of a succeeding pregnancy.

Monitoring in the post-partum interval is neither dependent on the sophisticated laboratory methods which are useful during the ante-

partum period nor on the electronic techniques of the intrapartum period. It is based, rather, on a thorough knowledge of the newborn, on study of the placenta and umbilical cord, and an awareness of the difficulties liable to be encountered by the "high risk" mother after delivery.

### Newborn

*Normal Newborn Infant*—Delivery of the infant necessitates a shift from the indirect techniques useful in assessing fetal maturity and well-being during pregnancy and labor to direct observation of the infant in the delivery room. The duties of the obstetrician do not terminate with the successful delivery of an infant but enter yet another phase of "monitoring." He must be certain that the infant is guaranteed adequate medical care in the critical interval between delivery and admission to the newborn nursery. Three avenues of approach will provide this guarantee: establishment of vital functions; physical examination geared to detect major congenital malformations (especially those of a life-threatening nature and surgically correctable) and provision of a warm environment.

Detailed discussion of respiratory physiology in the newborn and resuscitative techniques is beyond the scope of this review and the reader is referred to the authoritative treatises of Dawes<sup>1</sup> and Abramson.<sup>2</sup> Knowledge of the "A, B, C's" of newborn care are essential.

Airway management should be approached both prophylactically and therapeutically. It is commonly thought that slow delivery of the

---

\* Dr. Thompson is Director, Department of Obstetrics and Gynecology, St. Michael's Medical Center, Newark.



infant's body after delivery of the head decreases post-partum hemorrhage, prevents damage to fetal viscera and allows for the maximal transport of oxygenated placental blood to the infant.<sup>3</sup> Of greater importance, I believe, is the clinical observation that slow, controlled delivery of the fetal thorax causes the egress of some 10 to 30 cc. of mucus from the respiratory tract in response to compression by the maternal pelvis. Prior to delivery of the body suctioning of the oropharynx with a bulb-type aspirator may prevent aspiration of meconium or blood on the infant's initial gasp. Suctioning with a catheter or mucus trap should be limited to the period following delivery. The catheter should not be inserted into the nasopharynx because vagal responses may be precipitated and lead to cardiac arrhythmias.

Breathing must be established and maintained after cleansing of the respiratory tract. Notation on a permanent record of the time of the first gasp and cry and the onset of sustained respiration should be noted. Ambient air or an oxygen-enriched atmosphere is often all that is needed to assist in maintaining respiratory function. If positive pressure is indicated, the use of a bag and mask with an oropharyngeal airway usually suffices. An Ambu bag is ideal for this purpose; up to 40 percent oxygen may be given with safety because of the presence of a "pop-off" valve which is activated if pressures exceed 25 cm. of water. The persistence of respiratory distress, despite deliverance of oxygen under pressure for up to 5 minutes, is indication for endotracheal intubation, preferably with a flanged tube that doesn't impinge on the carina. Here again suctioning should precede administration of oxygen. A folded towel, placed under the shoulders, allows extension of the neck and if the tongue is depressed and pushed to the left by the blade of the laryngoscope, the tube may be inserted easily to the right of the mouth. Full expansion of the chest wall and bilateral breath sounds should be noted to insure proper placement of the endotracheal tube.

Circulation must be maintained to provide

transport of oxygen from the alveoli to the tissues. If asystole, bradycardia or arrhythmia are present after ventilation, external cardiac massage should be initiated. The infant should be placed on a rigid surface or on the physician's hand to support the back prior to placing two fingers directly over the heart. The chest wall is depressed about one half inch approximately 100 times a minute. Ventilation and external massage should be performed alternately so that three massages occur for each insufflation with oxygen. This ratio of 1:3 closely simulates the normal respiratory-cardiac ratio. Massage should be halted at thirty-second intervals to look for signs of a heartbeat and discontinued once a regular beat ensues.

Drugs of value to the physician in the delivery room include epinephrine and sodium bicarbonate. In the infant with intractable bradycardia or cardiac arrest 0.1 mg. of epinephrine (1.0 ml. of 1:10,000 dilution), diluted with 5 mEq. of sodium bicarbonate, should be injected into the heart (the subdiaphragmatic route is used to avoid puncture of lung parenchyma). Intracardiac epinephrine and external cardiac massage will usually restore effective perfusion and a cardiac rate over 100.

Sodium bicarbonate, administered through an umbilical catheter, is useful in correcting the metabolic derangements of birth asphyxia. The technique of umbilical catheterization may be perfected by trials on isolated segments of umbilical cord. In the intact newborn, a catheter of 3½ or 5 French diameter is inserted to a premarked line on the catheter or to a depth previously measured to equal the distance between the umbilicus and diaphragm. I have found that insertion of a stay suture in the cord prior to cutting the cord and placing of the catheter decreases blood loss and allows for prompt securing of the catheter following accurate placement. A solution of 10 percent glucose in 0.1 percent saline infused at the rate of 60 ml./kilogram body weight/24 hours may be used to keep the vein open. It is advisable to x-ray the abdomen to determine the site of placement of

the catheter, which can be used to support circulation and to administer drugs.

Evaluation of the infant for further care should then be carried out. The need for pharmacologic or ventilatory care should be assessed; transport of the baby to a neonatal intensive care unit should be considered at this time. All decisions at this time are subject to change, depending on the infant's progress, but initial evaluation for further care should commence.

Following stabilization of the infant, an initial screening examination should be made in the delivery room. This short examination should seek clues of disease or abnormality. Evaluation of respiratory function should be the first step and the Apgar method of scoring at one and five minutes is the most commonly employed.<sup>4</sup> To insure order to my examination, I start with the head and work downward. Skull contour and diameter and separation of the sutures should be noted. A cleft lip is readily apparent, but the roof of the mouth should be visualized and palpated for evidence of a cleft palate. Auscultation of the heart will reveal rate, rhythm, and cardiac location. A scaphoid abdomen, with a shift of heart sounds toward the midline, suggests the presence of a diaphragmatic hernia; bowel sounds are rarely heard in the chest at this early age. The insertion of the umbilical cord should be checked for any sign of an omphalocele; if present, the sac should be covered with sterile gauze moistened with saline. The external genitalia should be examined since assignment of sex is required in the delivery room. It is important, however, to look for the possibility of electrolyte imbalance in a female with ambiguous or masculinized external genitalia such as occurs with congenital adrenal hyperplasia. A soft rubber catheter should be inserted to determine patency of the anus. Next, the thumbs of the examining hands should be placed over the femoral heads, and, with the knees bent, the hips flexed 90 degrees. The detecting of a characteristic click suggests subluxation of the hip joint. The infant is then turned over and the entire vertebral column examined

for a meningocele. If present, the sac should be covered with moistened gauze. The frequency of detecting malformations in the delivery room is related to the thoroughness of the examination.

Newborn infants have a larger surface to body weight ratio than adults and hence have a greater physical problem in maintaining their body temperature. Homeothermic animals maintain body temperature by balancing heat production and heat loss. The capacity to increase heat production, as indicated by a rise in oxygen consumption, is significant, while the ability to limit heat loss is small.<sup>5</sup> The latter is compounded by the delivery of a wet infant into an environment approximately 20 degrees cooler than the uterine cavity. For these reasons the obstetrician should take measures to decrease heat loss. Until radiant warmers are present in all delivery rooms, other methods are needed: the infant should be dried vigorously and placed in a warm blanket prior to any attempts at resuscitation or examination, because the combination of hypoxia and prolonged exposure to cold can be lethal to the newborn. A warm environment minimizes the infant's need to increase heat production, while cooling of the newborn increases energy expenditure and aggravates the metabolic acidosis "normally" present at this time. The stimulus to the infant of vigorous drying may stimulate respiratory effort and prevent the cycle of hypoxia→increased metabolic need→further hypoxia.

After assurance of an unobstructed airway, the single most important contribution in the delivery room is provision of a warm environment. This enables the physician to work without haste in examining and treating the baby without increasing metabolic needs.

*Small Infant*—A low birth weight may not correlate with the gestational age; associated obstetric complications and early neonatal problems may also vary. The definition of prematurity, based on weight alone (less than 2500 grams), was introduced by the World Health Organization in 1950. In the past dec-



ade, it has become increasingly evident that the gestational age of an infant is even more significant than birth weight when assessing maturity. Knowledge of the singular importance of this factor often frustrates obstetricians who encounter patients with only vague recollections of the date of their last normal menstrual period. It has been documented that significant variation in birth weight for infants of known gestational age occurs.<sup>6</sup> If we assume that the wide range in infant birth weight is a true biologic variability in intrauterine growth rates, it is then possible to identify infants of a low birth weight proportional to gestational age and those of low birth weight not proportional to gestational age.<sup>7</sup> The rationale for such a classification is the marked difference in the behavior and medical problems of these infants in the nursery. Low birth weight is of concern because perinatal death is more common in smaller infants and because children with cerebral palsy, mental retardation, and other neurologic difficulties often begin life weighing less than 2500 grams. Current evidence to date suggests that many factors can be responsible for low birth weight.

The gestational age of a newborn infant can be assessed in the delivery room by a two-minute examination which searches for five external characteristics. The premature infant lies frog-legged with elbows, wrists, knees, and ankles touching the mattress while the head is turned to one side. The term infant lies with arms and legs flexed and moves his head from side to side. The skin of a premature infant is thin and shiny with abundant vernix; term infants have thicker skin which flakes and is often devoid of vernix. Prior to thirty-four weeks gestation, there are no transverse creases on the soles of the feet while after thirty-eight weeks there are creases over at least the anterior two-thirds of the sole. Breast tissue is not present and the nipple is barely visible before thirty-four weeks. In the term infant, breast tissue is 10 mm. in diameter or more and the nipple is prominent. In the premature male infant, the testicles are high in the scrotum which is not pigmented and has few rugae. The labia ma-

jora are widely separated by the protruding labia minora and clitoris in the premature female infant. In the term male infant, the testicles are usually well descended in a pigmented, rugose scrotal sac; the female of like gestational age demonstrates almost complete coverage of the introitus by well-developed labia majora. Knowledge of the length of gestation coupled with the above observations can provide the obstetrician with a fairly accurate impression of the maturity of the infant.

True prematures (defined as having a birth weight between the tenth and ninetieth percentile for a given gestational age by Lubchenco) are prone to develop hyperbilirubinemia and respiratory distress syndrome.<sup>8</sup> Defective conjugation in hepatic microsomes is currently accepted as the main causative factor in neonatal jaundice, the defect being a delayed development of the enzyme glucuronyl transferase. Cord blood bilirubin is of little value in this type of hyperbilirubinemia, in contrast to instances of Rhesus sensitization. The mother of a premature infant who is intending to breast feed should be warned of the association between breast feeding and jaundice in the newborn. Respiratory distress syndrome (RDS) usually becomes clinically evident at a few hours of age so intensive efforts to initiate and maintain respiration should begin in the delivery room for the vulnerable premature. An initial pressure of 25 mm. Hg. is needed to expand the lungs of a newborn. Administration of oxygen under positive pressure in the delivery room may serve to expand enough alveolar sacs to insure adequate gas exchange until the infant is able to manufacture enough surfactant to prevent collapse of these alveoli. This will prevent the gradually increasing atelectasis that is the hallmark of RDS. In addition, thorough suctioning of the oropharynx and maintenance of warm surroundings are essential.

It has been estimated that fully 25 percent of newborn infants weighing less than 2500 grams are full term infants who are victims of intrauterine growth retardation.<sup>9</sup> These in-

infants fall into the "less than ten percentile of body weight for a given gestational age" category and, as such, may be termed "small-for-gestational-age" (SGA). If born at term, rapid but thorough assessment will reveal the presence of mature external features despite the low birth weight.

This group of small term babies can be divided into two categories: those who are abnormal but had a normal intrauterine environment and those who are essentially normal but had an abnormal intrauterine environment. The prime example of the former are those infants who suffered intrinsic impairment of fetal cell division through injury or genetic defect such as the trisomys. Placental transfer of infections such as rubella and the exposure to known teratogens or ionizing radiation can also account for the delivery of a small infant from a normal intrauterine environment. Fetal malnutrition secondary to an abnormal intrauterine environment can occur because of insufficient growth substrate such as is caused by maternal malnutrition. In the absence of maternal vascular disease the causes of placental insufficiency may not be clearly delineated. It is a fairly common occurrence to deliver a small but mature infant and observe a placenta approximately half the size of the normal.

In contrast to the low birth-weight infant who is truly premature, SGA infants present unique management problems in the early neonatal period.<sup>10</sup> Prior to delivery of a patient whose abdominal measurements are smaller than would be expected for her gestational age, continuous fetal heart rate monitoring should be carried out throughout labor and delivery because of the increased incidence of fetal distress in this group. Immediately after birth, vigorous suctioning of the tenacious, often meconium-stained, mucus should be carried out. The incidence of meconium aspiration and pneumonitis is very high among SGA infants and birth asphyxia on this basis may be significant. More than half of these infants are subject to episodes of hypoglycemia so it is helpful to obtain a cord blood glucose; if umbilical vein catheteriza-

tion is required, a solution of 10 percent glucose should be started to support respiratory function. Since intrauterine infection can lead to low birth-weight, placental cultures and cord blood for immunoglobulins should be obtained. Growth-retarded infants have an increased incidence of polycythemia which may contribute to respiratory difficulty, so it is helpful to obtain capillary blood, for hematocrit determination.<sup>11</sup> Although many of these problems fall into the realm of neonatal care in the nursery, it is certainly advantageous for the obstetrician to be aware of the different clinical behavior of small babies and assist in their management when possible.

*Large Infant*—Difficulties encountered by infants who are "large-for-gestational-age" (LGA) have received much less attention than those of the small infant. Controversy exists as to delineation of a cut-off point above which an infant may be considered of excessive size. As many as 50,000 infants weighing 10 pounds or more are delivered in the United States each year.<sup>12</sup> Infants of 8 pounds, 8 ounces may be considered large since the perinatal mortality rate increases above this birth weight.<sup>13</sup>

Increasing parity, maternal age, maternal nutrition and length of gestation are among the variables influencing birth weight. Length of gestation has undoubtedly the greatest single effect but pre-pregnant maternal weight is probably more significant than maternal age and parity, in mothers who deliver large infants.<sup>14</sup> These infants show not only an increase in birth weight but also in length and head circumference. They are big all over in contrast to infants born of diabetic mothers whose increase in body weight is due to an increase in total body fat and infants born edematous due to hydrops fetalis or associated placental chorioangiomas.

Obstetric complications with large infants are due largely to mechanical factors resulting in increased perinatal mortality and morbidity. Shoulder dystocia which may be anticipated in up to 10 percent of large infants, may prove lethal in one third of these babies.<sup>15</sup> In anticipation of such a complication, it is

helpful to place the maternal buttocks well over the end of the delivery table and make a generous mid-lateral episiotomy. Lithotomy position may be abandoned in the presence of a large baby in an effort to increase the antero-posterior diameter of the maternal pelvis. There is no reason why the posterior shoulder cannot be delivered first if it appears in the vagina. One may also see neurologic sequelae involving central nervous system structures, secondary to prolongation of the second stage of labor, or injury to the brachial plexus due to compression or vigorous traction on a limb during performance of the Barnum maneuver.

Specific disease entities account for only a small proportion of LGA babies. The effects of maternal diabetes are well known and the characteristic appearance so colorfully described by Farquhar<sup>16</sup> mandates glucose tolerance testing of the mother. Infants with congenital transposition of the aorta are liable to be large.<sup>17</sup> Beckwith's syndrome applies to large infants with macroglossia, umbilical hernia, and a tendency to neonatal hypoglycemia.<sup>18</sup> Knowledge of these entities on the part of the aware obstetrician and alerting of the physician attending the neonate may prevent anoxic or hypoglycemic threats in the nursery.

*Anomalous Infant*—Heredity and environmental factors, beginning prior to birth and continuing until death, interact to mold the individual. The basic process of morphogenesis is under genetic control but it depends on environmental factors for full expression of its potential. That the fertilized ovum, even in a hospitable environment, can undergo the maze of developmental contortions required of the embryo is a tribute to the stability and precise execution of genetic coding.

Minor anomalies are morphologic disparities without medical or cosmetic effects of consequence. These occur commonly in areas of complex and variable features such as the face, ears, and limbs. Fourteen percent of newborns have a single minor anomaly, but less than 1 percent have two anomalies.<sup>19</sup> Of

more significance, however, are the 0.5 percent of newborns with three or more minor abnormalities, 90 percent of whom have major defects and about half of whom have identifiable syndromes. The recognition of one minor malformation thus obligates the examiner to search for others in view of the increased possibility of a life-threatening malformation in infants with three or more minor anomalies. Familiarity with Down's Syndrome, trisomies D and G, and Turner's Syndrome is helpful to the obstetrician examining the newborn in the delivery room. A neutral statement as to the status of a newborn with stigma of the above syndromes is preferable to the embarrassment which will follow when a glowing statement or downgrading of seemingly insignificant deviation from the norm is offered. The relationship of a single umbilical artery to an increased incidence of congenital anomalies especially of the urinary tract, is appreciated by most obstetricians. Less well known is the association of malformed thumbs with congenital heart disease<sup>20</sup> or the association of depigmented areas of skin with tuberous sclerosis.<sup>21</sup>

The delivery of a newborn with congenital anomalies poses the following questions:

Does the combination of anomalies suggest an identifiable syndrome? Is there a major anomaly present? Are these merely randomly associated malformations? The answers to these questions should emphasize the need for diagnostic and prognostic evaluation on which clinical management should be based. Most importantly, from the patient's viewpoint, a basis is established for estimating the risk of recurrence in future pregnancies.

Major anomalies that may require medical or surgical evaluation soon after birth occur in approximately 3 percent of newborns.<sup>22</sup> About 40 percent of these infants will have more than one malformation while only 20 percent have defects that will permit syndromic identification. Delivery of an infant with a major anomaly obligates the obstetrician to seek information about the prenatal course. Specific inquiry should be directed toward:



(1) exposure to known teratogens, such as chemicals or ionizing radiation; (2) ingestion of drugs not prescribed by the obstetrician, and (3) the presence of seemingly insignificant illnesses. A detailed personal and family history should be retaken. Attempts should be made to interpret the defects from the point of developmental anatomy and ascertain, when possible, gestational age at which the insult occurred.

A single localized defect in morphogenesis can alter the appearance of subsequently developing structures. This may be ascribed to minor differences in a number of gene loci involved in the determination of a particular characteristic and is termed polygenic inheritance.<sup>23</sup> Anomalies, such as cleft lip and palate, pyloric stenosis, club foot, and anencephaly-spina bifida, are thought to be inherited in this manner. In the absence of an affected parent or sibling, the recurrence rate ranges from 2 to 6 percent.<sup>24</sup> The more severe the malformation, the greater the chances for recurrence consistent with the extent of the adverse genetic factors involved. Chromosomal analysis is probably not indicated in infants with a single major anomaly of the type mentioned above.

Multiple malformations suggest that various genes involving different characteristics may be involved. Attempts should be made to determine if the infant falls into a recognizable syndrome; pictorial atlases are readily available to assist in this regard. Chromosomal karyotyping may be helpful in making the specific diagnosis. Down's syndrome is the most common pattern of chromosomal malformation in man and, while the other known chromosomal abnormalities are admittedly rare, attempts at diagnosis should be made by karyotyping.

Parental counseling is the province of the genetic counselor and attempts by anyone less qualified should be discouraged. Inherent in counseling should be an explanation of why the altered structures appear the way they do; the natural history of the anomalous condition; measures which may be employed to

assist the infant, and a thorough discussion of the risk of recurrence.

*Stillborn Infant*—Over the past four decades, fetal mortality diminished. In this country there has been a leveling off of this trend during the past fifteen years at a rate of approximately eleven per one thousand live births.<sup>25</sup> In 1971, there were 1441 fetal deaths in the State of New Jersey accounting for a fetal death rate of 12.9 per 1000 live births.<sup>26</sup> Prematurity by weight was noted in 60.3 percent of the fetal deaths. In discussing fetal mortality, one must differentiate between antepartum and intrapartum fetal death. While it is true that each accounts for about half of the total, it is hoped that intrapartum fetal death will be decreased to an almost irreducible minimum with greater use of electronic fetal monitoring during labor. Attempts have been made to classify antepartum loss into early (20 to 27 weeks) and late (28 weeks and over). This method has merit only in the prognostic sense. Early fetal loss due to erythroblastosis fetalis, maternal diabetes, and syphilis (in years past) mitigates against successful future pregnancies with delivery of a mature liveborn infant. For the most part, antepartum fetal losses still remain an enigma. The minimal diagnostic workup of a patient suffering such a loss should include study for blood group incompatibility, glucose tolerance testing and serologic tests for syphilis.

The occurrence of an intrapartum death, particularly at term, suddenly focuses attention on the events immediately preceding such a catastrophe. The death, which often is unanticipated, all too frequently occurs in the latter portion of labor. Two criteria should be employed to define a fetal death as intrapartum: (1) the presence of fetal heart sounds after the onset of labor and (2) the absence of any sign of life after delivery of the infant. Improved prenatal care has increased the likelihood of delivering a liveborn infant, but it is now felt that any parturient presenting to the delivery room with evidence of a viable fetus should almost be guaranteed delivery of such through en-



hanced use of fetal monitoring. Acute accidents of labor, such as prolapse of the umbilical cord or rupture of a vasa previa, may preclude salvage of all of these infants, but this should be the goal.

Classification of fetal deaths on the basis of necropsy findings, although theoretically sound, leaves much to be desired from a practical standpoint. Despite the presence of obstetric complications, the precise cause of death may not be evident. Half of all stillbirths show no definite cause of death at the time of necropsy. Intrapartum hypoxia is thought to be the major cause of intrapartum fetal death.<sup>27</sup> Prolapsed cord, abruptio placenta, amnionitis, uterine rupture, and certain congenital malformations can cause intrauterine hypoxia and lead to death of the infant. Accurate description of clinical conditions associated with intrauterine hypoxia has been hindered to some extent by difficulties in fetal appraisal and by problems involved in etiologic classification. The need for a clinical classification of causes of fetal death has been stressed and this should be included in all discussions of fetal deaths.<sup>28</sup> In addition, maternal factors (such as the history of a previous stillborn infant), paternal age and medical history, antepartum course (including exposure to endogenous and exogenous noxious stimuli), and a histologic comment on the placenta and umbilical cord should be included in all investigations of the cause of death.

### Placenta and Umbilical Cord

A complete evaluation of intrauterine contents at birth (placenta, cord, and cord blood) must be developed to supplement assessment of the neonate at risk. This information should be recorded and conveyed to nursery personnel in an effort to alert them of the possibilities of a less than optimum outcome. Gross examination of the placenta may be initiated by inspection of the membranes which normally are of a bluish-silver hue and glistening. Discoloration of the membranes may result from prolonged exposure to meconium or by the formation of white plaques under the chorion which represents

fibrin deposition in Langhan's layer. Peripheral fibrin deposition suggests an extrachorial placenta; a distinct fold at the edge of the chorionic plate is termed a circumvallate placenta.<sup>29</sup> If the chorion laeve arises without a fold, placenta marginata results. Occasionally, the patient with an extrachorial placenta will have a history of loss of amniotic fluid during pregnancy. The amnion, or innermost layer, pulls freely from the chorion; in twin gestation, the most frequent finding is a single chorionic layer covering two discrete amniotic sacs.

Histologic examination of the membranes may prove helpful if intrapartum fetal distress was noted. Meconium laden macrophages in the amnion indicate prolonged exposure to meconium. Chromatin studies, for determination of sex, may be done on the amnionic layer. Amnion nodosum consists of nodules of vernix with fat and desquamated epithelial cells which replace the degenerated epithelial layer caused by a paucity of amniotic fluid.<sup>30</sup> Clinical evidence of oligohydramnios, coupled with the finding of amnion nodosum, suggests the presence of a congenital malformation of the urinary tract in the newborn. If the amnion ruptures during pregnancy and the chorion remains intact, amniotic fluid and fetus may emerge through the opening and exist in the naked chorion.<sup>31</sup> Amnionic bands may then form and cause constriction necrosis and auto-amputation of portions of fetal extremities in utero. The finding of absent or partial digits, coupled with clubbed feet suggests that amnionic bands were causative.

The most common gross finding of the maternal surface of the placenta is infarction with or without calcification. Although most commonly found in normal pregnancy, infarcts are also associated with hypertensive disorders, where the consequences to the fetus depend on the extent of placental destruction. The placenta of the diabetic mother is often heavier than normal; on microscopic study, it reveals relative immaturity with the persistence of two distinct trophoblastic layers and, frequently, islands of erythropoiesis. Rhesus

sensitization is thought to be due to repetitive micro transfusions of fetal blood throughout pregnancy. Villous discontinuity allows the leakage of fetal red cells, which is confirmed by the finding of fresh lakes of blood within the center of cotyledons. Similarly, sickled red cells may be found in the intervillous spaces of the placenta when the mother has sickle cell anemia. Morphologic changes in the placenta, associated with antepartum evidence of placental insufficiency, and the delivery of an SGA baby vary greatly. Quantification studies of placental structure demonstrate a correlation between microscopic pattern and function.<sup>32</sup> Infarction, fibrosis and avascularity are common findings. Chorioamnionitis and placentitis are usually caused by ascending infection from the lower genital tract with the spread being transmembranous. In addition to obtaining cultures of amniotic fluid and the uterine cavity in patients with prolonged labors or rupture of the membranes, a portion of placenta should be obtained for both culture and histologic study. Infiltration of leucocytes in the amnion, chorion and villi confirms the presence of in-utero infection.

True neoplasms of the placenta are uncommon. Chorangiomas, which are benign neoplasms of vascular and connective tissue, arise within placental tissue but may bulge the chorionic surface if they attain sufficient size. There is frequent association between the presence of a chorangioma and fetal abnormalities or fetal death.<sup>33</sup> In all high-risk pregnancies the placenta should be weighed and measured in the fresh state and a comment made on its shape.

The umbilical cord should be measured and the number of vessels noted. The normal human umbilical cord has two umbilical arteries of allantonic origin and one vein; the shorter right umbilical vein is thought to disappear in early development. In one percent of deliveries there is only one umbilical artery.<sup>34</sup> Microscopic confirmation should be obtained, since this finding is known to be associated with congenital abnormalities, especially of the urinary tract. At present, parents

should be given this information but one need not obtain an intravenous pyelogram in the neonatal period unless symptoms warrant. In the majority of placentae, the cord has an eccentric insertion. Fetal bleeding from exposed vessels in a velamentous insertion may result in anemia in the newborn period or even fetal exsanguination if the vessels rupture during labor. The umbilical cord should also be examined for evidence of infection or vascular thrombosis if the infant shows no signs of distress.

It is mandatory that umbilical cord blood be obtained at the time of delivery of a Rhesus negative mother. If blood grouping and Rh determination reveal the presence of an Rh negative infant there is no need to subject the infant to further testing in the nursery and no need to give the mother RhoGam.<sup>®</sup> If there is a history of a previous jaundiced newborn, a Coombs test of the cord blood is indicated. The use of cord blood has been expanded in recent years and, when applicable, advantage should be taken of this fact in an effort to anticipate neonatal difficulties. Cord blood glucose is not commonly low in an infant of a diabetic mother, but it provides a good baseline should the infant develop symptoms at six to eight hours of life. Black infants should be screened for sickle cell anemia by use of cellulose acetate electrophoresis. The most promising advances have occurred with the determination of cord blood immunoglobulins. Humoral antibodies, which are secreted into the body fluids by plasma cells, have been localized to the gamma globulin fraction of serum protein, hence the name immunoglobulins. IgG comprises the major portion of adult immunoglobulins and is the only one known to cross the placenta. IgM, the largest of the immunoglobulins, does not cross the placenta but is synthesized by the fetus. The fetus and neonate contain antibodies to a full array of infectious agents. IgA is present in serum and secretions of exocrine glands; like IgM, it does not cross the placenta. Elevated levels of IgM in cord blood suggest increased fetal synthesis caused by the antigenic stimulation of intrauterine infection. This finding is of particular impor-

tance when found in an infant delivered of a mother with prolonged rupture of the membranes. In addition, elevated levels of IgM in the cord blood of an SGA or malformed newborn would suggest the possibility of rubella, cytomegalic inclusion disease or toxoplasmosis. Recovery of the etiologic agent is diagnostically definitive but an immunofluorescent technique can be utilized to identify specific antibodies in the IgM fraction. On the other hand, the finding of "normal" levels of IgM in the cord blood of infants delivered of a mother with a positive serology would suggest that she had been adequately treated. This may be the case even if the cord blood serology is positive; if there is no corroborative x-ray evidence and no rise in serologic titers, the infant probably requires no treatment.

Systematic reviews of pregnancy wastage and damaged progeny usually disregard the placenta and its appendages as a valid source of data relevant to the pathologic process of pregnancy. The study of these unique tissues may often prove rewarding.

### **Mother**

After providing the newborn with a warm environment and a clear airway attention should be returned to the mother. Undue bleeding from the episiotomy should be controlled while awaiting delivery of the placenta. If the placenta does not separate in fifteen to twenty minutes, it should be removed manually. Manual removal and thorough exploration of the uterine cavity should also be performed in all patients who have delivered prematurely or have had a malpresentation to determine if a structural abnormality of the uterus was contributory. Removal of the placenta manually should only be done with good indication in the Rh negative mother because of the possibility of introducing large amounts of fetal blood into the maternal circulation. If it is done, a maternal blood sample should be studied for the presence of fetal red cells and, if found in abundance, the dose of RhoGam® should be increased accordingly.

An aggressive investigation of post partum hemorrhage should be initiated prior to dis-

continuing anesthesia and the lithotomy position. In patients with prolonged labor, catheterization of the bladder often suffices to correct the uterine atony that leads to increased bleeding. If bleeding persists, systematic investigation should commence with examination of the episiotomy, vaginal mucosa and cervix, and conclude with manual and, if possible, visual exploration of the lower uterine segment. A firmly contracted fundus on abdominal palpation coupled with excessive vaginal bleeding is suggestive of a laceration of the lower uterine segment.

In many instances, the risk factor that biased the pregnancy is overlooked during the post partum stay in the hospital. Patients with pregnancies complicated by hypertension should have a chest x-ray, electrocardiogram and blood electrolyte determination during this period. Post partum intravenous pyelograms should be discouraged in such patients because of the dilatation in the urinary tract that persists for as long as six weeks. Patients with a refractory anemia of pregnancy should have bone marrow studies and those with hemolytic anemia require studies of red cell kinetics. The variation in insulin requirement in the post partum diabetic are well known, but steps toward long-term stabilization should be taken once the diabetogenic factors of pregnancy have disappeared. It is now accepted that all Rh negative mothers delivered of Rh positive infants and showing no signs of active immunization during pregnancy, delivery or immediately post partum, should be passively immunized with RhoGam® within seventy-two hours of delivery as initially suggested by Freda.<sup>35</sup> This holds true for patients with abortions and ectopic pregnancies in which the blood type of the fetus is not ascertainable. If the patient does not receive the RhoGam® within the prescribed seventy-two hour period, it should be given as soon as the oversight is noted.

Excessive blood loss during the intrapartal and immediate post partal period is liable to have a profound effect on renal function if a blood pressure sufficient to provide adequate renal perfusion cannot be maintained. This is



particularly true if the blood loss is associated with abruptio placenta in which renal cortical necrosis is a real hazard and may even prove lethal.<sup>36</sup> A urinary catheter should be inserted promptly in such patients to measure urinary output hourly and specific gravity every four hours. Whole blood or packed red cells should be transfused as needed and fluid replacement based on output.

Hepatitis is diagnosed in a small percentage of patients within six months of transfusion but determination of the exact incidence is hampered by the difficulties in following a large number of blood recipients through a long potential incubation period. Clinical evidence of serum hepatitis is uncommon, but anicteric hepatitis by laboratory studies is increased in patients given five or more units of blood.<sup>37,38</sup> The frequency of fibrinogen-transmitted hepatitis is much higher, so the indiscriminate use of fibrinogen in obstetric hemorrhage is to be discouraged.<sup>39</sup> Parameters of liver function including serum transaminase levels, should be obtained during the immediate post partum period and at intervals thereafter in patients who have had significant amounts of blood replacement and in all who have had fibrinogen. These patients should also be screened for the hepatitis B antigen (HBAg, Australian antigen) to obtain a baseline for further evaluation. The solid state radioimmunoassay has high sensitivity but low specificity; the red blood cell agglutination technique, however, has a high specificity and correlates well with disease transmission.<sup>40</sup>

Pituitary function should be evaluated post partum in patients who have experienced hemorrhagic shock during or immediately after labor. Sheehan's syndrome (panhypopituitarism following shock at or near the time of delivery) is thought to be caused by spasm of the arterial blood supply of the anterior lobe with resultant ischemic necrosis. Clinically, the failure of breast engorgement and lactation, in the absence of a lactation suppressant, coupled with failure of pubic hair to regrow, suggests pituitary insufficiency. Since selective deficiencies in pituitary hor-

mone synthesis and secretion may occur, the availability of human prolactin assays will enable the obstetrician to investigate the post partum pituitary gland in a more sophisticated manner. Prolactin secretion increases progressively as term approaches and levels return to normal within seven days of delivery.<sup>41</sup> Suckling by the infant, the use of a breast pump or manual stimulation are potent stimuli for prolactin release post partum. If suckling fails to bring about significant elevation of serum prolactin, provocative tests to evaluate the functional reserve of the pituitary gland should be carried out. Synthetic thyroid-releasing hormone in a dose of 100ug diluted in 10cc with saline and given as a bolus intravenously causes prompt release of prolactin from its site of synthesis in the pituitary gland.<sup>42</sup> Most pituitary hormones respond to trophic stimuli from the hypothalamus, but the prolactin inhibiting factor (PIF) controls prolactin secretion. The makeup of PIF has not been elucidated but it is thought to be a catecholamine or transmitted by a catecholamine. Phenothiazine preparations decrease hypothalamic catecholamine content and, hence, lead to increased prolactin secretion.<sup>43</sup> Chlorpromazine in a dose of 25mg intramuscularly, leads to increased secretion of prolactin that peaks two hours later. Failure of either of these agents to induce a rise in prolactin secretion indicates decreased pituitary reserve. Neither prolactin nor the gonadotropins are essential to life, but evaluation of thyroid and adrenal parameters should be carried out if the post partum pituitary gland cannot be induced to secrete prolactin.

## Conclusion

It is becoming increasingly apparent that many of the problems of the neonate may be prevented or ameliorated by active intervention in the delivery room soon after delivery. This is particularly true in respect to respiratory difficulties that are liable to be compounded by hypoxia and a cold environment. The parturient who has just completed an "at-risk pregnancy" should be approached in an active manner, especially if she has experi-



enced significant blood loss. The delivery of a premature anomalous or stillborn infant requires that the obstetrician in conjunction with the pathologist pay close scrutiny to the placenta and the umbilical cord. Only by mounting a three-pronged attack will inroads be made on the dilemmas that face the mother and her newborn at this critical time in the lives of both.

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*Recently, a new group of chemical compounds, the prostaglandins, have been found to have very important physiological and pathological effects. They originate from practically all body tissues, have an extremely rapid metabolic turnover, and affect almost all organic functions. As a group, they show a wide range of effects, but individually they have strict specificity. Together with their antagonists, PGs are promising agents to be added to our therapeutic arsenal.*

## A Brief Review on Prostaglandins

**Jacyntho A. Da Silva, M.D., and Manuel M. Villaverde, M.D./Woodbridge\***

### Biochemistry of Prostaglandins

In the last few years, a new group of chemical compounds has been found to have very important physiological and pathological functions. These are the prostaglandins (PGs), which appear as oxygenated cyclic  $C_{20}$  fatty acids, involving five basic cyclopentano rings (called A, B, C, E and F). (Figure 1.) Each ring has two linear chains attached, fitting the so-called "hair-pin conformation" or "wedge conformation." (Figure 2.) By the placement of double bonds, OH radicals or other changes, each particular formula may vary, thus giving origin to the several PGs, such as  $PGA_1$ ,  $PGA_2$ , and so on.

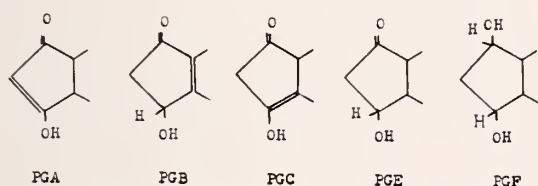


Figure 1--The five basic cyclopentano rings

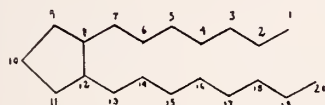


Figure 2--The "hair-pin conformation" of PGs

Essential fatty acids which are acceptable substrates for a PG-synthetase give origin to PGs. There is the possibility that an endoperoxide intermediate gives origin to  $PGE_2$  and  $PGF_{20c}$ . From  $PGE$  may be originated  $PGA$ , which may also be enzymatically transformed into  $PGB$ . Different structural variations give

origin to stereoisomers and analogues, with changes in activity.

Tests for PGs rely on gas liquid chromatographic-mass spectroscopy or on radioimmunoassay. These tests are sensitive at the picogram range (0.000,000,000,001 mg.).

### Sites of Origin

Prostaglandins are released from practically all tissues and organs. Following stimulation, cells in the lungs, kidneys, intestines, and particularly those cells which contribute to the formation of the seminal fluid (where PGs were first found), to quote only a few, will secrete substances capable of affecting different physiologic functions. The action of seminal fluid on the uterine muscle was the first known action of PGs, and because they were thought to derive principally from the prostate, these chemicals were called "prostaglandins." The name was erroneous since the main source of these prostaglandins is the seminal vesicles.

The lungs are not only an important source of PGs, but also an important factor in their metabolism. PGs (including  $PGF$ ) are apparently produced by the interstitial cells in the renal papillae. The intestines secrete a locally contracting material fundamentally composed of PGs. The endometrium produces  $PGF$ . Under the influence of nervous stimulation, other cells and tissues also release PGs. Finally, a close relationship has been found among PGs and hormones.

\*Dr. DaSilva is Medical Director and Dr. Villaverde is staff physician at Woodbridge State School, Woodbridge, New Jersey.

## Actions of Prostaglandins

*Sites of Action*—Prostaglandins have many different actions on cells, tissues and organs. As a group, PGs have a wide range of effects, but individually they have strictly specific actions which apparently depend on the membrane-bound enzymes. Smooth muscle contraction or relaxation is induced by PGs: PGE relaxes blood vessels (hypotension), bronchi (bronchodilation) and uterine muscle (decreases motility); PGF contracts blood vessels (hypertension) and bronchi (bronchoconstriction). Small intestine and colon longitudinal muscle are contracted by both PGE and PGF; the circular muscle is relaxed by PGE and contracted by PGF. In the stomach, smooth muscle is contracted by both PGE and PGF, the antral motility is inhibited by PGE and the fundic muscle contracted by PGE and PGF. Gastric secretion is inhibited by PGE and to a lesser extent by PGA. The gastric mucosa has enzymes that metabolize PGs. PGE and PGA relax the lower esophageal sphincter.

Some of the pituitary functions are stimulated by PGs, which help to release hormones: growth, adrenocorticotrophic, gonadotrophic and thyrotrophic hormones. PGs may also influence ovulation.

PGA apparently acts through the splanchnic vascular bed. Intravenous administration of PGA mainly decreases diastolic pressure and increases cardiac output; when injected into arterial beds, there is an increase of local blood flow, including the smaller vessels, particularly the microcirculation. The effect is accompanied by increased capillary permeability. Blood cell volume itself is affected by PGs, being either increased (PGE<sub>2</sub>) or decreased (PGE<sub>1</sub>). Also, PGs act on platelet aggregation, which may be increased (PGE<sub>2</sub>) or decreased (PGE<sub>1</sub>).

Through the nervous system, PGs appear to have actions on cardioregulatory and motor functions, body temperature, regulation of food intake and on behavior.

*Physiological Effects*—Many of the physiologi-

cal effects of PGs have already been cited. PGA mainly inhibits gastric secretions, is natriuretic and has hypotensive activity (PGE and especially PGF are less effective in some of these actions). Almost specific for PGE (less marked for PGA and almost absent for PGF) are the following effects: lowering blood pressure; and inhibition of gastric secretions, allergic response, neurotransmission and uterine motility. PGE also causes bronchodilation, release of pituitary growth and thyrotrophic hormones, increase of vascular permeability, inflammation of tissues and increase of cyclic adenosine monophosphate (cAMP). A mixed PGE-PGF activity (almost none for PGA) is the increase of uterine motility and induction of labor. A fourth group of PG activities can be attributed to PGF, namely, an antifertility effect, elevation of blood pressure and bronchoconstriction.

Hormone action is mimicked by PGs at the cell membrane level. Specific cell receptors for PGs may exist at different sites for different PGs, but this has not been proven. PG analogues have local activity when given orally. PGE and PGA provoke abdominal distress, diarrhea and biliary reflux in man when administered by mouth.

Although PGs may influence ovulation, they do not act on early follicular development, nor do they affect release of the ovum or progesterone synthesis. PGF does induce labor and early abortion, but the mode of action differs from that of oxytocin. PGF may produce uterine hypertonia and may induce contractions at any stage of pregnancy. PGF, which is produced by the endometrium, has a luteolytic action and provokes the regression of the corpus luteum, thus allowing a new cycle to start.

Some investigators assume that an excess of PGF may provoke bronchospasm, either by overproduction of this PG or because the lungs are capable of transforming PGE into PGF.

Sodium secretion by the kidney increases under the natriuretic influence of PGA and PGE,



but there is an additional modest increase in water diuresis. It is possible that PGA affects sodium, potassium and ATPase by an action on the papillary cell membrane which decreases sodium reabsorption; it may also act on renal blood flow and blood pressure, the latter from the arteriolar dilating effects of PGA (and PGE). Although these PGs have been found in the renal medulla, they may act peripherally as well. The injection of extracts from the renal medulla provokes transient hypotension (with no hypertensive rebound), an effect mainly due to PGA, but also to PGE. Circulating PGA is found in small concentrations in the hypertensive patient.

Blood cell volume is increased by PGE<sub>2</sub> and decreased by PGE<sub>1</sub>. These effects apparently relate to capillary microcirculation and can occur in a matter of seconds; pathologically, the PGE effects may be related to shock. Platelets are increased by PGE<sub>2</sub> and decreased by PGE<sub>1</sub>. The latter PG seemingly stimulates erythropoiesis and the former causes sickling of susceptible cells.

PGE decreases appetite (increased in some species), has a sedative effect capable of producing catatonia, and may provoke migraine-like headache. It is not well established whether PGE concentration increases during an attack of migraine. Hypertonia of muscle is provoked by PGF in some species, but similar effects are less marked with PGE (which may inhibit reflexes). PGE seems to be strongly related to the mechanism of hyperthermia through a hypothalamic reaction to pyrogens. Its role on regulation of body temperature seems to be a probability.

*Biochemical Effects*—PGs are readily released from the site of origin in an inactive form and become active under the influence of phosphorylase A. Since the biological activity of these compounds is very great, they circulate in very small amounts, ranging in the nanogram scale (0.000,000,001 mg.) Only PGA is found in larger quantities.

PGs may act on adenosine monophosphate

(AMP), on adenosine triphosphate (ATP) and on guanidine monophosphate. The activity depends on the availability of oxygen, calcium, calcium/magnesium ratio and cAMP. Most PGs are inactivated in the lungs, except PGA, which appears to be more stable and reaches higher concentrations. PGE is more easily dehydrogenated. Metabolic inactivation follows the regular pattern of beta-oxidation common to fatty acids, but dehydrogenation at the 15-position seems to be the biological pathway for reducing PG activity by means of the enzyme 15-hydroxyprostaglandin dehydrogenase. It is important to note that inhibition of the 15-dehydrogenase has led to the production of drugs with PG action and that the selectivity of the enzyme accounts for the several assay methods now in use.

The liver metabolizes PGs, but these compounds do not affect liver metabolism, in a general way. A possible exception is the adenylate cyclase-cAMP system. As stated before, the lungs are the main metabolizers of PGs. PGEs are potent bronchodilators and may inactivate such bronchoconstrictor agents as histamine and acetylcholine, even when administered by aerosol. While PGE seems capable of inhibiting histamine release, PGF cannot and actually provokes bronchoconstriction.

### **Relation of Prostaglandins to Other Pharmacological Compounds**

As stated, drugs with PG activity can be manufactured through inhibition of the 15-dehydrogenase. It should be noted that compounds such as indomethacin, acetyl salicylic acid and cannabis derivatives are capable of inhibiting the release of PGs and the activity of PG-synthetase, thus opposing the regular action of PGs themselves. This may explain the pharmacologic activity of these inhibitors which may interfere at some weak point of the PG-synthetase responsible for the very rapid synthesis of PGs.

Indomethacin, acetyl salicylic acid and cannabis derivatives are supposed to become useful agents for the treatment of PG-induced phenomena, such as inflammation (obstructive



lung diseases, uveitis), fever, diarrhea, arterial spasticity (cerebral), abortion or premature labor, sickle cell anemia, glaucoma, and perhaps other diseases. Unfortunately, these expectations have not yet materialized.

### Potential Therapeutic Applications

As assumed from the above review, the potential therapeutic uses of PGs are manifold, mainly depending on how we will be able to overcome their rapidly vanishing actions and their undesirable side effects. We shall bear in mind, also, the following facts: PGE seems to be able to aid in the prevention of inflammatory reactions, perhaps preventing histamine release when PGE levels reach high amounts (defense mechanism?). Both PGE and PGF are found in allergic skin reactions (eczema), and are apparently related to collagen formation that follows longlasting inflammation. Furthermore, PGE seems to be associated with pain, erythema, increased vascular permeability (edema) and local hyperemia; its injection into joints results in arthritis.

*Bronchodilation*—PGE is a very promising adjuvant for the treatment of asthma and other immune-inflammatory diseases. This is probably due to its antagonistic effect towards PGF (perhaps an asthma inducer). PGE can act as a bronchodilator with no relationship to bronchodilation induced by drugs acting on beta-adrenergic receptors, such as isoproterenol.

*Hypertension*—Both PGA and PGE have a hypotensive effect. PGA has been tried for the treatment of essential hypertension with suggestive results. It is assumed that this therapeutic action depends on the effects of PGA on (1) peripheral resistance, (2) renal resistance, (3) plasma volume, (4) cardiac output (indirect action), (5) blood pressure, and also other factors related to hypertension. Un-

fortunately, the administration of PGA may be accompanied by diarrhea, but the use of analogues may help to prevent undesirable side effects and to enhance therapeutic activity.

*Gastritis, Stress Ulcers and Diarrhea*—Gastritis and stress ulcers have responded at times to treatment with PGs, particularly PGE. In spite of the wide range of effects of PGs gastrointestinal functions, these substances do not seem to be good agents for the treatment of gastrointestinal disease at the present time. On the other hand, the use of PG antagonists may be helpful for the treatment of some digestive disorders, particularly diarrhea (cholera type).

*Therapeutic Abortion*—PGF has been used for therapeutic abortion. Other PGs have similar action, but despite this their use as contraceptives has been disappointing. Labor at term is induced by PGF as well as by oxytocin, though PGF did not show positive advantages. It is superior to all other methods when used for abortion at about the midterm gestational time. When administered intra-amniotically, it is effective in 100 percent of all inductions within 24 hours. For this purpose PGF is less harmful and provokes less side effects.

*Blood Transfusions*—The action of PGE as an inhibitor of platelet aggregation may increase the usefulness of stored blood for transfusions. On the other hand, its ability to prevent sickle cell crises has not been clearly proved, yet.

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The Woodbridge State School

**IMPORTANT INFORMATION:** This is a Schedule V substance by Federal law; diphenoxylate HCl is chemically related to meperidine. In case of overdosage or individual hypersensitivity, reactions similar to those after meperidine or morphine overdosage may occur; treatment is similar to that for meperidine or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of an initial response to Nalline® (nalorphine HCl) or may be evidenced as late as 30 hours after ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.

**Indications:** Lomotil is effective as adjunctive therapy in the management of diarrhea.

**Contraindications:** In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

**Warnings:** Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

**Usage in pregnancy:** Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

**Precautions:** Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine is added to discourage deliberate overdosage; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

**Adverse reactions:** Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

**Dosage and administration:** Lomotil is contraindicated in children less than 2 years old. Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

**Overdosage:** Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

**Dosage forms:** Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. Liquid, 2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of ½ ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

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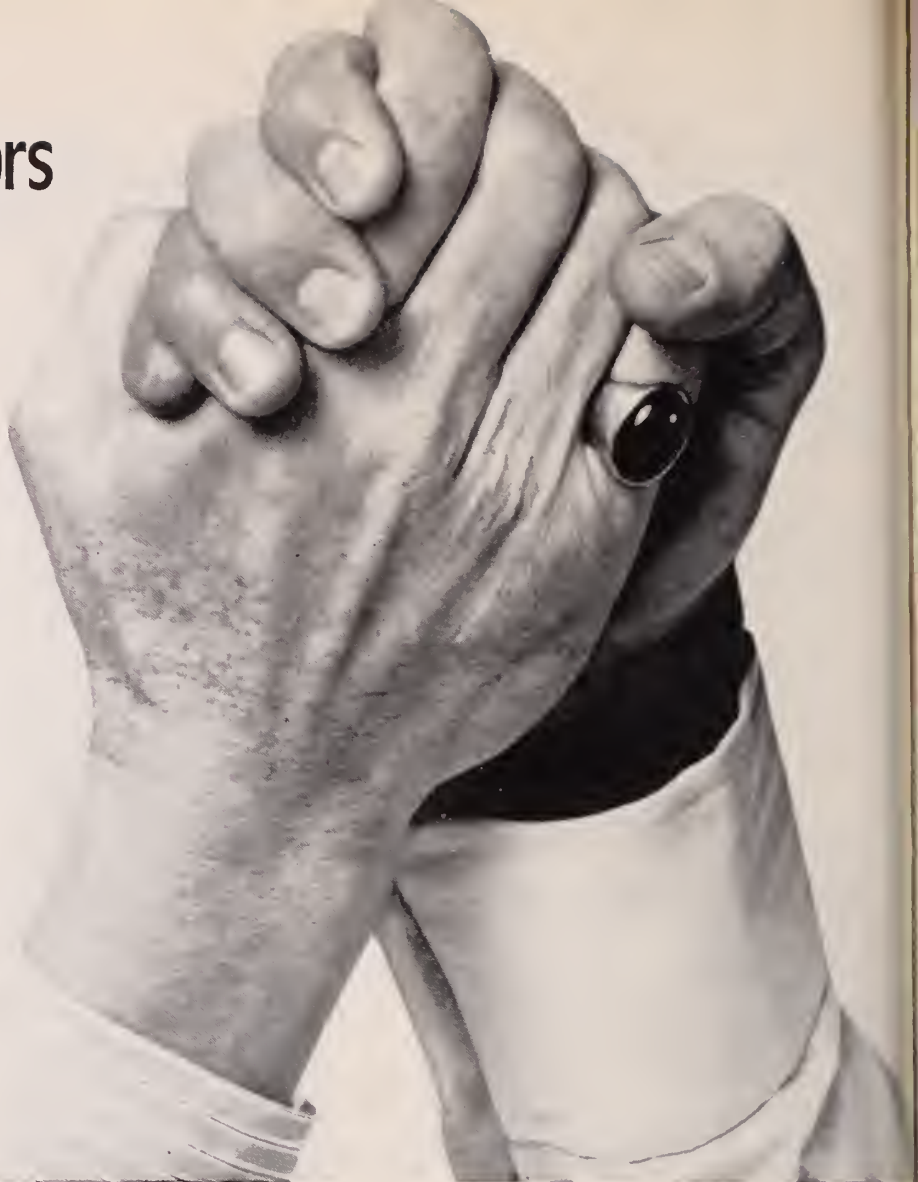
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**Indications:** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows.

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

**Composition:** Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

**Dosage and Administration:** 10 to 20 mg. three or four times daily.

**Contraindications and Cautions:** There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

**Adverse Reactions:** On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

**Supplied:** Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500 and Unit Dose.

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*Over the past two decades multiphasic screening has been the subject of critical review by those engaged in the health and medical fields. Using the City of Newark as its testing ground, because of its high rates of diseases and social maladies, this study attempts to test the following hypothesis: "When communities are carefully selected on the basis of known prevalence of specific disease patterns, mass screening offers an appropriate mechanism for case-finding and referral, as well as for implementing effective preventive measures as part of the health care delivery system." Our experience and findings clearly support this hypothesis.*

## Multiphasic Screening in Newark

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**Mark A. Quinones, Ph.D. and  
Alphonse A. Cinotti, M.D./Newark\***

Multiphasic screening as a central concept in preventive medicine was born in the period following World War II. During the 1960's it received increasing attention, incorporating a wide range of tests and screening devices, and better trained technicians. The development and refinement of automated techniques also gave impetus to multiphasic screening on a large-scale basis.

Historically speaking, exponents of this method have viewed it as a practical screening device for the early detection of disease and disorders among supposedly well populations. The advantages often noted are financial savings to participants and time saved by physicians.

Those who argue in strong opposition to multiphasic screening claim that the extent of professional involvement required, in light of abnormalities discovered, are costly and time consuming when the general population is screened. Despite these polar extremes, there exists a middle range group who argue that multiphasic screening is of value, but only among clearly defined population groups known to manifest high rates of specific diseases and illness that can in fact be screened.

With these views in mind, the CMDNJ-New Jersey Medical School, in cooperation with the Newark Health Department and the New Jersey State Department of Health, sponsored a multiphasic screening program during the period 1968 through 1970. The city of

Newark was chosen as the ideal community for testing the validity of the multiphasic screening concept. Newark was selected for at least the following reasons:

1. For some time now Newark has manifested high rates of disease and illness throughout the city. In fact, Newark shows evidence of being a prime leader of a variety of health and disease patterns on a national basis.
2. For the most part the Newark city population has been a deprived group and has received minimal, if any, health care and attention in the past.
3. Because of its socio-economic and health status over the last decade, Newark can clearly be considered a high-risk community on the basis of any community health profile.

Essentially, the screening program was aimed at testing the hypothesis that "*when communities are carefully selected on the basis of known prevalence of specific disease patterns, mass screening offers an appropriate mechanism for case finding, appropriate referral, as well as for implementing effective preventive measures as part of the health care delivery system.*"

### City of Newark

Among large American cities, Newark, New Jersey, has the highest tuberculosis rate, most crime per 100,000 population, heaviest per capita tax burden, sharpest shifts in population, highest rate of infant mortality, and very high rates of venereal disease. It also ranks second in population density and birth rate, and fifth in absolute number of known drug addicts.

City planners and officials of the CMDNJ-

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\* Dr. Quinones is Director, Division of Social Medicine and Assistant Professor, Department of Preventive Medicine and Community Health; Dr. Cinotti is Professor and Chairman, Department of Ophthalmology, CMDNJ, New Jersey Medical School.

New Jersey Medical School recognize Newark as an uncommon challenge, big enough to count and small enough to manage. It is as close to a perfect testing ground for the techniques of tomorrow as anywhere in the nation.

### **Multiphasic Screening Program (MSP)**

During 1968 through 1970, the City of Newark conducted a multiphasic screening program—bringing to the population a series of diagnostic tests and examinations—normally beyond their financial ability. The MSP consisted of a team of physicians, nurses and auxiliary medical personnel responsible for conducting the various tests. The program was preceded by a series of prearranged publicity and promotional activities involving all phases of the mass media, distribution of posters in stores, a variety of notices and flyers to parents through the school system, churches, and civic organizations. Every effort to publicize the program fully was explored.

The MSP was sponsored and planned by the Health Department of the City of Newark in cooperation with CMDNJ-New Jersey Medical School, Newark and funded by the State Department of Health. Location sites were selected on the basis of their accessibility to the general population. Voluntary health agencies, schools, churches and civic groups were active participants by providing equipment and facilities, necessary hook-ups at location sites, and volunteer workers and refreshments.

### **Method of Screening**

The various phases of the MSP included tests for diabetes, hypertension, cardiac and pulmonary disorders, venereal diseases, ocular disorders, and general medical complaints. Where more intensive diagnostic procedures and examinations were suggested, the participants were referred to private physicians or, in their absence, to the local hospital clinics—for the most part the Martland Hospital of the Medical School. The method for screening was achieved in the following order:

*Phase I—History:* Participants were registered, and appropriate identification forms completed (contain-

ing basic social and medical history data) for the patient's use throughout the screening. Interpreters were available for the Spanish-speaking participants.

*Phase II—Measurement:* Participants were weighed and measured, and results recorded on the appropriate forms.

*Phase III—Serology:* Blood was drawn for serological tests by technicians assigned by the Newark Health Department.

*Phase IV—Diabetes Detection:* Blood testing for diabetes was obtained by the "finger puncture testing method." Suspects were given a glucose mixture, and asked to return after appropriate time lapse for blood sugar. Positive blood sugar tests were then referred to the appropriate medical facility for further follow-up.

*Phase V—Eye Screening:* This consisted of a series of ophthalmological tests conducted by resident physicians with the Division of Ophthalmology, New Jersey Medical School. The tests included visual acuity, with and without the patient's correction, an external eye examination, a tonometry test for glaucoma, and a funduscopy examination without dilatation. All results were recorded on ophthalmological forms. Where indicated, participants were advised to seek further follow-up at one of the designated referral locations or from a private ophthalmologist of his choice.

*Phase VI—General Medical Screening:* Resident physicians in internal medicine at the Medical School measured the blood pressure and examined the heart and lungs. Where medical complaints were reported, participants were referred for further examination.

*Phase VII—Chest X-Ray:* A 70 mm chest x-ray was made to evaluate the absence or presence of tuberculosis and other pulmonary disorders.

In addition, female participants were offered Pap smears by special appointment and all screenees were given an opportunity to request information and counseling concerning family planning from appropriate representatives.

### **Findings**

Table I shows the number surveyed and the findings for the screening period.

### **Follow-up**

The screening program was well accepted with excellent reaction by the community and large numbers participating. The follow-up reached a large proportion of those found positive, and there were good clinical facilities available for referrals:

(a) Abnormal x-ray and other lung pathology: Patients are referred to the Chest Disease Bureau for follow-up.

(b) Abnormal cardiac x-rays including hypertension and heart pathology: Patients are referred to their private physician or the Division of Health for follow-up.

(c) Positive serology: Patients are referred to the Venereal Disease Bureau for follow-up.

(d) Complete eye examination: Patients are referred to the Eye Clinic at the New Jersey Medical School or to their private physicians.

Table I  
Total Patients Screened  
(1968-1970)

Total Screened:	11,268
1. Diabetes Screening:	
Positive	4.0%
New potential or unknown	32.0
Negative	29.0
Undetermined	39.0
2. Chest X-rays:	
Abnormal chest	1.5%
Abnormal cardiac	1.6%
3. Serology:	
Positive	2.9%
4. Hypertension:	
Abnormal blood pressure	8.0%
5. Heart and Lung:	
Abnormality determined by physical examination	1.0%
6. Eye Examination:	
Patients requiring refractions	14.0%
Patients requiring eye examination for pathology	5.4%

In addition, the health educational aspects of the program played a significant role. The materials distributed explain the screening program and the need for preventive care. Thus, the programs reached people who had never experienced any type of health care except emergency treatments or care associated with terminal disease. The educational material was also translated into Spanish to reach that segment of the population.

The City of Newark maintains a large clinic building with facilities for ambulatory care. In addition, there is a large general hospital with a Family Care Health Center which accepts patients on a referral basis. Several of the community hospitals also maintain clinics.

The results of the follow-up of patients in the program indicate that 69.5% of diabetic subjects were reached either by letter or personal communication by a health worker. These patients were under the care of either one of the clinics or a private physician.

Of those with positive x-ray finding, 27 percent were under supervision by a clinic, and 39 percent by private physician. Those showing signs of hypertension or cardiac or lung disease tended to seek private medical care,

with 52 percent seeking such care. This is possibly due to the fact that other tests require a second or third visit to a clinic and patients then become accustomed to using this clinic as their treatment center. Cases with positive serology tests were carefully sought by every possible means, and all were placed under medical supervision.

The eye screening program was conducted by the residents from the affiliated hospitals and therefore most patients with pathology were referred to their respective hospital clinics, or to private ophthalmologists. The names of those who were glaucoma subjects were turned over to the Eye Health Services of the State Commission for the Blind and followed up first by letter, then by telephone, and if necessary by a home visit to insure that they were under care. Close to 90 percent of these patients were reached by this method.

Discussion

The above screening indicates that approximately 30-35 percent of those patients who had a condition needing further medical care were not reached, despite efforts to apprise them of their problem. Many factors are responsible for this (i.e., inadequate address, frequent moves, lack of telephone, suspicion of those new arrivals in the area). Many lived with relatives or friends and quickly move to other areas as opportunities arise.

Screening programs of this type are inexpensive and can check large numbers of people in a short period of time. When patients are motivated to utilize these programs, many treatable and/or curable diseases can be detected early and cared for and the general health of the community may be considerably upgraded. This is especially important in light of the shortage of physicians especially in the inner city areas.

Conclusion

The Newark multiphasic screening experience supports the hypothesis of mass screening in communities known to have a high risk index of preventable and curable diseases.



# CASE REPORTS

*A case of acutely bleeding arteriovenous malformation of the cecum was successfully diagnosed by selective mesenteric arteriography and treated by surgical resection. During active, massive, lower gastrointestinal hemorrhage, selective arteriography should be performed before barium enema.*

## Arteriovenous Malformation of the Colon, A Source of Massive Low Intestinal Hemorrhage\*

**Stanley S. Fieber, M.D./West Orange,  
Kenneth L. Jewel, M.D., and  
Richard Boden, M.D./Montclair**

The diagnosis of the site of hemorrhage in the gastrointestinal tract has been a source of constant frustration to all those charged with the responsibility of caring for such patients. It has been reported that conventional radiographic techniques failed to demonstrate the potential source of hemorrhage in approximately 20 to 30 percent of cases.<sup>2,5</sup> Even when a lesion is encountered, it is uncertain that this is the cause of the hemorrhage. The problem is further complicated when more than one lesion is shown. Under fortunate circumstances, the endoscopist may actually see the source of bleeding. The surgeon is unable to find the cause of bleeding in as many as 20 percent of patients explored for upper gastrointestinal hemorrhage and 70 percent of those undergoing surgery for melena.<sup>12</sup> By means of percutaneous selective mesenteric arteriography, bleeding rates as small as 0.5 ml per minute have been demonstrated with serial filming.<sup>11</sup> Intraoperative angiography, with catheters placed preoperatively, has been used to localize a lesion and confirm its complete removal.<sup>1</sup>

In 1960, Margulis, *et al.*,<sup>10</sup> reported the successful use of operative segmental mesenteric arteriography for the demonstration of bleeding cecal arteriovenous malformation. Since then, only 21 cases have been reported in the literature.<sup>1,3,6,7,8,13,14</sup> At the Cleveland Clinic,<sup>1</sup> 12 cases were discovered by arteriography. Nine of these patients had previous laparotomies, during which the lesions were not detected. Kanner, *et al.*,<sup>9</sup> reported a series of six arterio-

venous malformations of the colon with three located in the cecum. There was a preponderance of these lesions in the right colon, particularly the cecum.

### Case Report

An 80-year-old male developed signs and symptoms of massive low gastrointestinal hemorrhage manifested by bloody stools at home at 5 a.m., on 8/21/73. He was seen in the emergency room at 7 a.m. where he passed another bulky bloody stool.

Past history included hemorrhoidectomy in 1966; prostatectomy for carcinoma followed by orchidectomy in 1968; and massive gastrointestinal hemorrhage, site undetermined in 1971. A barium enema at that time revealed a few diverticula and the upper gastrointestinal series revealed duodenal bulb deformity.

While being prepared for sigmoidoscopy, the patient passed 700 ml. of dark red stool. Sigmoidoscopic examination to 25 cm. level revealed persistent hematochezia from above. With the cecum insufflated with air by means of a rectal tube, selective superior mesenteric arteriogram was performed (Figure 1). Renografin 76® (60 ml.) was utilized and filmed at a rate of two exposures per second during the arterial phase. Slight enlargement of the ileocolic branch of the superior mesenteric artery was noted in the early arterial phase. In the midarterial phase, a pooling of contrast was noted along the lateral border of the cecum. Early venous drainage into an enlarged ileocecal vein followed. The diagnosis of arteriovenous malformation was entertained. An emergency right hemicolectomy with an ileotransverse colostomy was performed. Also performed were an incidental Meckel's diverticulectomy and a cholecystectomy for incipient perforation of a gallstone. The patient was given a total of seven units of whole blood and packed cells. On the seventh postoperative day, the patient passed two black stools accompanied by a 7 percent decrease in hematocrit. The site of this episode of bleeding was not identified. The subsequent postoperative course was uneventful. The pathological specimen showed a classical arteriovenous malformation of the cecum with microulceration.

### Discussion

The pathogenesis of arteriovenous malformation is obscure, but it may represent a vascu-

\*From the Departments of Surgery, Radiology, and Pathology, Montclair Community Hospital, Montclair, New Jersey.



Figure 1—The cecum is properly distended with air by insufflation. Pooling of contrast is noted along the lateral aspect of the cecum (arrow). An early draining vein is also seen above that.

lar microhamartoma. Grossly, the lesion is difficult to detect once the vessels have collapsed. Microscopically, it consists of a cluster of dilated, thick and thin-walled arterial and venous channels situated in the submucosa.

The numerous microscopic arteriovenous shunts are responsible for early massive venous filling. Associated microfocal ulcerations frequently occur and are difficult to reconcile.

Alfidi, *et al.*,<sup>1</sup> listed the following categories of arteriovenous malformation of the intestines: (1) Large isolated malformations with extensive abnormal capillary beds. Generally, these show a markedly dilated feeding artery and draining vein. (2) A distinct blush in the region of the malformation with neither the artery or the vein feeding the malformation. (3) Early venous filling with no blush. (4) Dilatation of the arterial tree, no blush, and early massive filling of the draining vein.

Angiographically, the differential diagnosis of a vascular lesion of the bowel includes carcinoma, polyps, leiomyosarcoma, carcinoid and metastatic neoplasms from hypervascular primary sites such as kidney and islet cell tumor of the pancreas. Early venous drainage may be seen in these tumors. However, there is usually a discrete mass present in the barium enema with air contrast or at laparotomy. Bleeding diverticula, a common cause of massive lower colon hemorrhage, will cause puddling of contrast material in the lumen. No intramural lesion or venous dilatation occurs.

The treatment of arteriovenous malformation is surgical removal. However, Blakemore<sup>4</sup> utilized a technique of infusing pituitrin into the superior mesenteric artery in four patients with acute bleeding arteriovenous malformations as an effective temporizing measure.

## Summary

A case of acutely bleeding arteriovenous malformation of the cecum was diagnosed by selective arteriography and treated by resection. With the availability of selective arteriography, active as well as occult gastrointestinal bleeding site can be localized. This precludes need for a blind bowel resection. During active, massive lower gastrointestinal hemorrhage, selective arteriography should be performed before barium enema.

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Ragan, C.: The Clinical Picture of Rheumatoid Arthritis. in Arthritis, ed. 8, edited by J. L. Hollander and D. J. McCarty Jr., Philadelphia: Lea & Febiger, 1972, chap. 21, p. 335

**Geigy**

**Important Note** This drug is not a simple analgesic. Do not administer casually. Carefully evaluate patients before starting treatment and keep them under close supervision. Obtain a detailed history, and complete physical and laboratory examination (complete hemogram, urinalysis, etc.) before prescribing and at frequent intervals thereafter. Carefully select patients, avoiding those responsive to routine measures, contraindicated patients or those who cannot be observed frequently. Warn patients not to exceed recommended dosage. Short-term relief of severe symptoms with the smallest possible dosage is the goal of therapy. Dosage should be taken with meals or a full glass of milk. Substitute alka capsules for tablets if dyspeptic symptoms occur. Patients should discontinue the drug and report immediately any sign of fever, sore throat, oral lesions (symptoms of blood dyscrasia), dyspepsia, epigastric pain, symptoms of anemia, black or tarry stools or other evidence of intestinal ulceration or hemorrhage, skin reactions, significant weight gain or edema. A one-week trial period is adequate. Discontinue in the absence of a favorable response. Restrict treatment periods to one week in patients over sixty.

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**Contraindications:** Children 14 years or less; senile patients; history or symptoms of G.I. inflammation or ulceration including severe, recurrent or persistent dyspepsia; history or presence of drug allergy, blood dyscrasias, renal, hepatic or cardiac dysfunction; hypertension, thyroid disease, systemic edema, stomatitis and salivary gland enlargement due to the drug; polymyalgia rheumatica and temporal arteritis; patients receiving other potent chemotherapeutic agents, or long-term anticoagulant therapy.

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dictable benefits against potential risk of severe, even fatal, reactions. The disease condition itself is unaltered by the drug. Use with caution in first trimester of pregnancy and in nursing mothers. Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.

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**CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have hypersensitivity to any of the components.

**WARNINGS:** Because of the potential hazard of nephrotoxicity and ototoxicity of neomycin, care should be exercised when using this product in treating severe burns, trophic ulceration and other extensive conditions where

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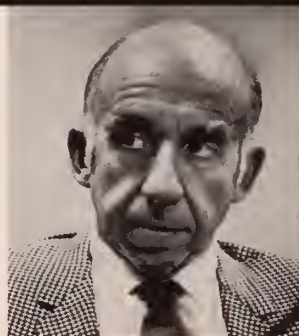


# The Role of the Detail Man

Dr. Willard Gobbell  
Family Physician  
Encino, California



Dr. Jeremiah Stamler  
Chairman  
Department of Community  
Health and Preventive  
Medicine, and Dingman  
Professor of Cardiology  
Northwestern University  
Medical School



"I may be prejudiced, but I am very much in favor of the detail man. I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

## Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.

"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

## The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent films produced by the pharmaceutical industry. When they function in t

Opinion  
&  
Dialogue

## He a Source of Information?

Yes, with certain reservations. The average sales representative is a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply prints of articles that contain a great deal of information. Here, however, I exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. I do so without saying that a physician should also rely on other sources for his information on pharmacology.

## Training of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, so it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

## Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

capacity they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just "pushers" of their drugs.

## Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all material as a labor of love—they are in the business of selling products for profit. In this regard, ambitious and improperly motivated sales representative can exert a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the practitioner to depend too heavily on drugs for his total therapy. In these ways, the salesman has often distorted objective reality and determined his potential role as an educator.

## Industry Responsibility

Since the detail man must be an information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, of course, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—i.e., the patients—will be.

## Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

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*Rudimentary branch ureter or blind-ending ureteral diverticulum is an infrequently discussed entity in the radiologic literature. Approximately sixty cases have been presented in the urologic literature. An additional four cases are reported. The entity may frequently be associated with dysuria, recurrent urinary tract infection, or colicky pain. Excretory urography or retrograde pyelography is the best method of diagnosis of this frequently neglected entity.*

## Rudimentary Branch Ureter and Its Roentgen Significance

**Gordon B. Manashil, M.D.,  
Marshall Carlin, D.O., and  
Bruce L. McClennan, M.D./Long Branch**

Rudimentary branch ureter is an entity much neglected in the radiologic literature. Approximately sixty cases have been reported in the urologic literature.<sup>1,2,3</sup> The purpose of this paper is to emphasize the radiographic appearance of blind-ending ureteral diverticulum and to report four additional cases. Radiographic appearance, differential diagnosis, etiology, and clinical significance will be discussed.

### Case Reports

**Case 1:** A 71-year-old male was admitted to Monmouth Medical Center on 7/1/72 with the chief complaint



**Figure 1**—IVP revealing duplication of left ureter beginning at lower one-third of ureter. (Case 1)



**Figure 2**—Oblique view of Case 1 IVP with better detail of duplication.

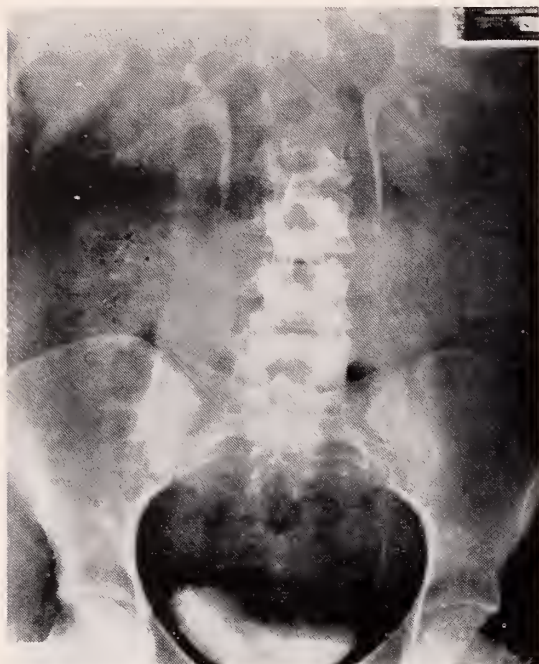
of acute urinary retention. Significant in the past history was dysuria, frequency, and urgency. Physical examination revealed an afebrile, elderly male in no acute distress with no significant physical findings aside from a moderately enlarged prostate.

During the hospital stay, urine culture revealed *E. coli* with greater than one hundred colonies per milliliter and no other significant abnormalities. Excretory urography revealed the presence of duplication of the left ureter with a blind-ending ureteral pouch. Cystoscopy revealed evidence of prostatic inflammation and prostatic obstruction.

An uncomplicated suprapubic prostatectomy was performed on 7/13/72.

\*From the Department of Radiology, Monmouth Medical Center, Long Branch, New Jersey, where Dr. Manashil is Associate Attending Radiologist as well as Senior Instructor in Radiology at Hahnemann Medical College, Philadelphia. Dr. Carlin is a Resident in Radiology at Monmouth Medical Center and Dr. McClennan is presently at Georgetown University Hospital.

*Case 2:* A 17-year-old female was admitted to Monmouth Medical Center with a history of recurrent urinary tract infection. Physical examination on admission was entirely normal. Intravenous pyelography performed on 1/26/73 was unremarkable with the exception of a duplicated left ureter with a blind-ending ureteral pouch.



*Figure 3—(Case 2) IVP revealing duplication on the left beginning in lower one-third of ureter.*



*Figure 4—Retrograde pyelogram revealing better detail of Case 2.*

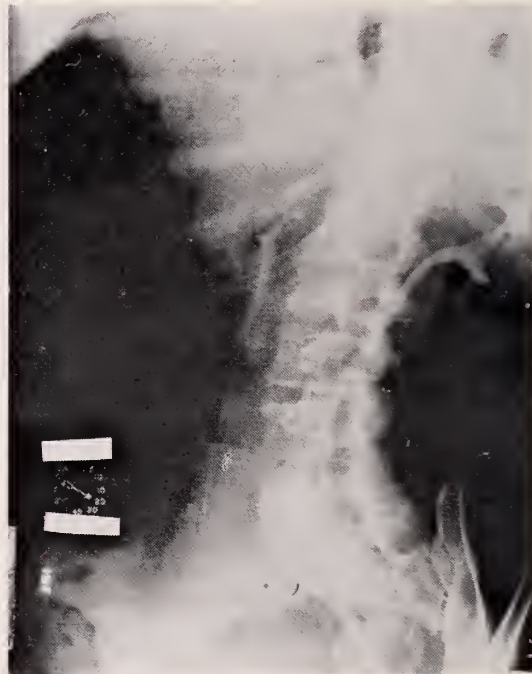
The patient underwent cystoscopy and retrograde pyelography, which further confirmed the impression of a blind-ending ureteral pouch. The patient was discharged from the hospital following cystoscopy and was placed on antibiotics and maintenance bladder sedation.



*Figure 5—(Case 2) Film from IVP revealing blind-ending duplication arising from distal portion of ureter.*

*Case 3:* A middle-aged male was admitted to Columbia Presbyterian Medical Center because of urethritis and a history of urinary tract infection. Physical examination was normal. Excretory urography revealed no significant abnormality aside from a blind-ending ureteral diverticulum arising from the distal portion of the right ureter. The patient was treated with antibiotics and discharged from the hospital for follow-up.

*Case 4:* A 63-year-old male with a history of urinary



*Figure 6—(Case 4) Small ureteral duplication in lower portion of right ureter from IVP film.*



tract infection was examined at Columbia Presbyterian Medical Center. Excretory urography performed revealed a duplication of the left ureter with a blind-ending diverticulum arising from the distal portion of the left ureter. The patient was treated with antibiotics and subsequently discharged from the hospital for follow-up.

*Case 5:* A 30-year-old female presented with a chief complaint of recurrent cystitis thought to be related to previous pregnancy. Intravenous pyelography done while in the hospital revealed mass effect involving the upper pole of the left kidney with some degree of malrotation. Nephrotomography confirmed the findings of a duplication of the left kidney with a double ureter. The patient was treated with antibiotics and discharged from the hospital for follow-up.



Figure 7—(Case 5) Tomographic cut from IVP revealing double ureter with associated mass effect on upper pole of left kidney.



Figure 8—Nephrotomogram confirming duplication on left side with renal parenchyma.

## Discussion

Rudimentary branch ureter, also referred to as blind-ending ureteral diverticulum, is felt to occur from multiple buddings from the Wolffian duct or premature cleavage from a single bud.<sup>1</sup> This anomaly usually occurs in

the lower or middle one-third of the ureter where the ureters are found in a common sheath with a common blood supply.<sup>1</sup> In the past, some authors have found associated atrophic renal parenchyma around the blind-ending diverticulum or a fibrous cord at its tip. Most authors, however, feel that these findings are uncommon. In one case report by Albers, *et al.*, the only pertinent histologic findings were confined to the tip of the lamina propria of the ureter which was infiltrated with a few chronic inflammatory cells.<sup>2</sup>

The female to male ratio is approximately two to one with the peak incidence occurring in the third decade.<sup>2</sup> Reports in older patients, however, do occur. Several associated anomalies have been reported including tracheo-esophageal fistula, eunuchoidism, Klinefelter's syndrome, and the presence of partial or complete duplication on the opposite side.<sup>2</sup>

The intravenous pyelogram is usually the primary method of diagnosis of a bifid ureter with blind-ending pouch. Frequently, intravenous pyelogram may be negative or equivocal and retrograde pyelography may be necessary to confirm the diagnosis. The oblique views are usually best for optimal radiologic demonstration. Occasionally, if there is a question of duplication of the kidney, nephrotomography may be of some value. Depending on the anatomy of the duplication, the mechanism of filling of the ureteral bud on the intravenous pyelogram is felt to be from reverse peristalsis from the intact ureter. If the "Y" portion of the budding ureter occurs intravesically, however, reflux does not occur on the intravenous pyelogram. The wider the caliber of the ureter and the greater the diameter of the junction of the two ureters, the greater the chance of ureteral reflux.

Symptoms and clinical setting for this lesion are quite variable. Occasionally a blind ending diverticulum is an incidental finding on the intravenous pyelogram. Colicky pain due to distension of the ureteral pouch as well as hematuria, pyuria, fever, dysuria, and enuresis have been reported.<sup>1,2,3,4</sup>



Case 5 illustrates the usual differential diagnostic problem of complete ureteral duplication with atrophic renal parenchyma. Renal duplication with double ureter usually occurs in the upper third of the ureter rather than the lower or middle thirds as with ureteral diverticulum. The renal duplication may or may not be accompanied by secondary changes in the kidney, i.e. "drooping lily," and often is associated with ureterocele. None of these findings, however, is specific as blind-ending ureteral bud has been reported in association with ectopic ureterocele, and may have secondary changes in the adjacent structures if the ureteral pouch is dilated.<sup>4</sup>

### Summary and Conclusion

Blind-ending ureteral diverticulum is an entity much more common than the radiologic

literature would have us believe. In patients with recurrent urinary tract symptoms or unexplained colicky pain, this entity should be considered. Intravenous pyelography is the best method of diagnosis and, occasionally, retrograde pyelogram is necessary for confirmation.

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Monmouth Medical Center

### Megavitamin Therapy in Psychiatry\*

Massive doses of vitamins, such as niacin, ascorbic acid, vitamin B<sub>6</sub>, folic acid, and vitamin B<sub>12</sub> have been employed and advocated by a few professionals and many of the lay public for the treatment of mental illness (schizophrenia, childhood autism, and forms of neurosis). The vitamins, in doses substantially greater than average estimated requirements, have been used singly or in combination with other vitamins, minerals, hormones, special diets, and forms of treatment. Megavitamin or orthomolecular therapy has not received wide professional acceptance. Advocates of megavitamin therapy propose that mental illness is a manifestation of a biological defect.

The Task Force has carefully examined claims and supporting evidence regarding the efficacy of megavitamin therapy, the theoretical structure of orthomolecular psychiatry, and data from research programs designed to duplicate the findings of megavitamin proponents.

In conclusion, the Task Force has found that

"the results and claims of the advocates of megavitamin therapy have not been confirmed by several groups of psychiatrists and psychologists experienced in psychopharmacological research." The theoretical basis for megavitamin treatment has little scientific support. Although vitamins in such high doses may exert pharmacological actions unrelated to their functions as vitamins, and a biological defect may explain some cases of schizophrenia, vitamins in massive doses are more likely to be harmful than beneficial. In addition, the Task Force declares that the credibility of megavitamin proponents is "further diminished by a consistent refusal over the past decade to perform controlled experiments and to report their new results in a scientifically acceptable fashion." The massive publicity promulgated by megavitamin therapists and orthomolecular psychiatrists is deplored.

\*A Report of the American Psychiatric Association Task Force on Vitamin Therapy in Psychiatry, Washington D.C., 1973.

*Popliteal entrapment, a congenital anomaly, should be suspected in any young person with symptoms of ischemia, since claudication is so rare in the second and third decade. Careful physical examination and arteriography may demonstrate an early lesion. Surgical intervention will prevent the potentially disastrous complications that follow repeated trauma. In the patient with an acute arterial occlusion popliteal entrapment must be distinguished from popliteal artery embolus, subadventitial cyst, and occlusion of an atherosclerotic popliteal aneurysm or previously stenotic popliteal artery. Attempted thrombectomy at the femoral level will be unsuccessful. Exploration of the entire popliteal artery by the medial approach is preferable.*

## Limb Loss in a Young Man Due to Entrapment of the Popliteal Artery

**Bruce J. Brener, M.D.,  
Joseph Alpert, M.D.,  
Donald K. Brief, M.D. and  
Victor Parsonnet, M.D./Newark\***

The "popliteal entrapment syndrome" is now a well-recognized clinical entity; at least 30 cases have been reported.<sup>1 to 23</sup> The patient is often a young man under 30 years of age who complains of unilateral claudication and is found to have an absent popliteal pulse. This report illustrates an unusual complication of the syndrome—namely, aneurysmal degeneration of the popliteal artery, distal tibial occlusion, and irreversible ischemia leading to limb loss. The arterial entrapment was further complicated by an anomalous proximal origin of the anterior tibial artery.

### Case Report

A 34-year-old man was admitted on August 9, 1973 because of pain, numbness, and coldness of his left leg. One year before admission while bowling, he noted a severe "cramp" in the left leg; this symptom promptly disappeared. Eighteen months prior to admission he complained of transient numbness in the foot after walking about one block. Seven months later this symptom recurred, lasting several days. A physician treated him for "muscle spasm." On the day of admission the patient noted severe pain in the left foot after climbing a flight of stairs. This was associated with coldness and numbness to the knee. On examination four hours after the onset of his symptoms, the foot was white, cold, and waxy. The anterior and posterior calf muscle groups were tender. The popliteal pulse was prominent, but no pedal pulses were felt.

Because of the severity of the ischemia the patient was taken immediately to the operating room. The popliteal artery was explored through a medial incision. The distal popliteal artery was pulseless and contained fresh thrombus. The medial tendon of the gastrocne-

mius muscle originated more laterally and posteriorly than usual. The popliteal artery, aneurysmal in its proximal portion, was compressed as it passed between the two muscular heads (Figure 1). The anterior tibial artery arose from the aneurysm in an abnormal proximal location. All three major tibial branches contained fresh thrombus. After the gastrocnemius tendon was divided, the aneurysm was resected (Figure 2) and replaced with a segment of reversed saphenous vein (Figure 3). A Fogarty catheter was passed down the peroneal and posterior tibial vessels to the ankle. An intraoperative arteriogram showed persistent thrombosis of several small branches of the vessels and recurrent distal occlusion of the main trunks. Fasciotomies were performed because of massive edema of the muscles; the gastrocnemius muscle was not reapproximated. Although the graft remained patent the foot became gangrenous. A definitive below-knee amputation with extensive debridement of necrotic muscle was performed two weeks following the initial procedure. This healed without incident and the patient began ambulation three weeks following this procedure. A postoperative arteriogram demonstrated patency of the graft (Figure 4).

In the asymptomatic limb the anterior tibial artery originated more proximally than usual (Figure 5). There was atherosclerotic plaque in the proximal popliteal artery but no compression could be demonstrated. Follow-up arteriogram three months after surgery showed no change in either limb.

### Discussion

The term "popliteal entrapment syndrome," coined by Love and Whelan in 1965,<sup>8</sup> refers to the compression of the popliteal artery by the gastrocnemius or popliteus muscle in its course through the popliteal fossa, which subjects the vessel to repeated trauma during walking. With slight variations there are two anomalies that are responsible for this syndrome.<sup>14</sup> In the most common form (Type I) the popliteal artery as it leaves the adductor

\*This work is from the Department of Surgery, Newark Beth Israel Medical Center and the New Jersey Medical School, CMDNJ, Newark, supported in part by the Klosk Vascular Research Fund.



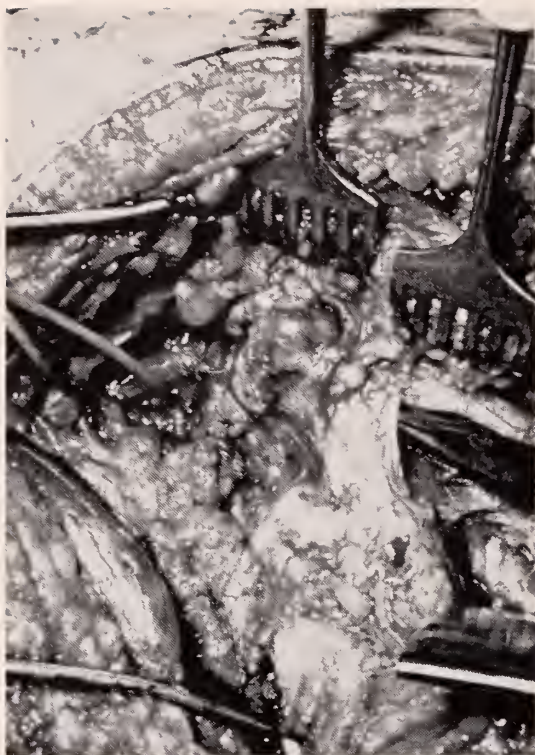


Figure 1-A

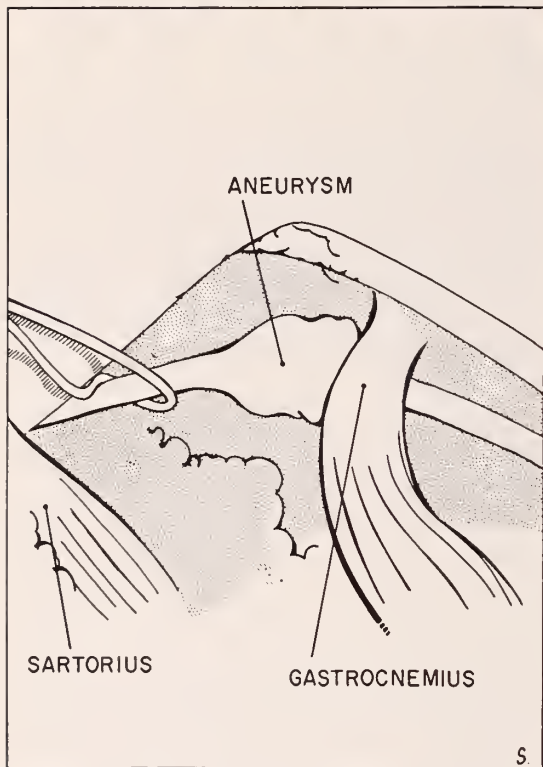


Figure 1-B

Figure 1—Intraoperative photograph (a) demonstrates the popliteal aneurysm and abnormal origin of the medial head of the gastrocnemius muscle, as shown in (b). The catheter encircles the proximal popliteal artery.

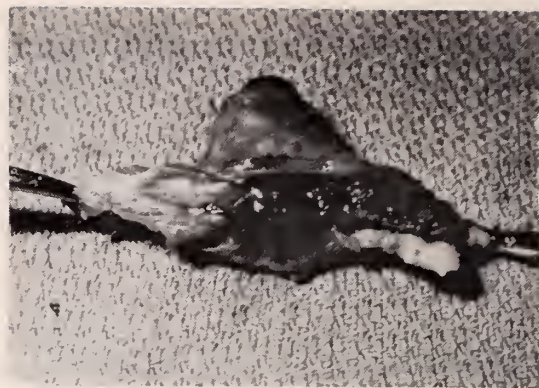


Figure 2—The resected aneurysm contained fresh thrombus.



Figure 3-A

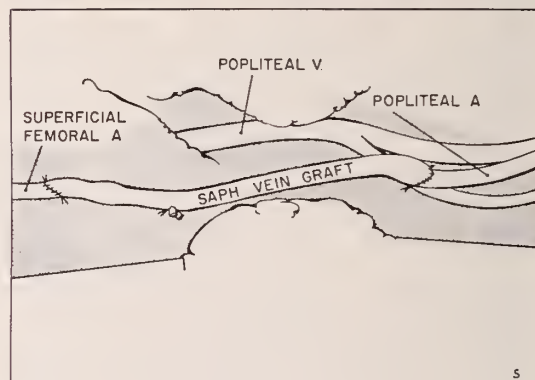


Figure 3-B

Figure 3—Intraoperative photograph (a) shows the reversed saphenous vein graft in place. Diagram (b).

canal courses medially around the medial head of the gastrocnemius muscle, and then resumes its normal position deep to the soleus (Figure 6). This anomaly was first described in 1879<sup>1</sup> by a medical student at the University of Edinburgh assigned by his professor to dissect the amputated leg of a 64-year-old man. Type I accounts for two-thirds of the





Figure 4—Postoperative arteriogram demonstrates patency of the graft.



Figure 5—The anterior tibial artery originates proximally in the asymptomatic limb. No compression is noted.

reported cases (Table I) of the popliteal entrapment syndrome. The artery in Type II is compressed by anomalous origin of the medial head of the gastrocnemius muscle, a slip of that muscle, the lateral head, or a fibrous band; the course of the artery is normal (Figure 7). This type is more difficult to recognize, which may account for its lower incidence in the literature.

Two-thirds of the patients reported have been under 30 years of age (Table I). All patients were male except for three women. Most patients had unilateral symptoms, but four cases of bilateral involvement have been described. The pathophysiology of the syndrome is related to the repeated trauma to the vessel with intimal degeneration, aneurysm formation, and eventual thrombosis. The clinical syndrome depends upon the stage of the

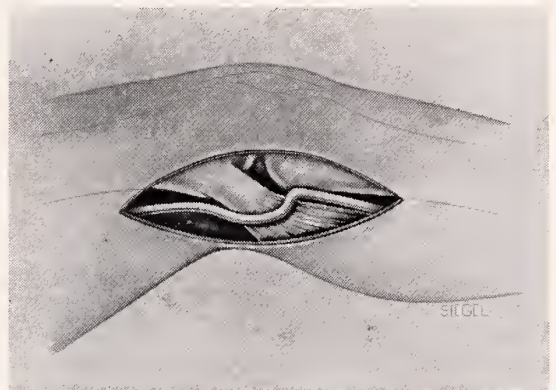


Figure 6—Type I anomaly in which the popliteal artery is superficial to the medial head of the gastrocnemius muscle.

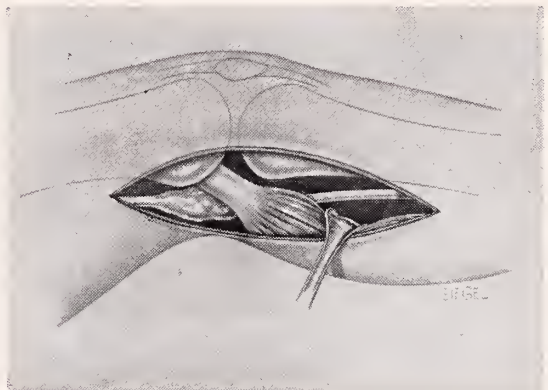


Figure 7—Type II anomaly in which the artery takes a normal course between the two heads of the gastrocnemius muscle. The medial head originates more laterally and posteriorly than usual, compressing the vessel.

Table I

Year	Age	Sex	Side	Type	Complication	Procedure
1879	64	M	—	I	A, T	AK
1925	—	—	—	II	—	—
1959	12	M	R	I	T	DM, TEA
1961	39	M	R	I	T	DM, TEA
1962	28	M	L	I	A, S	DM, A
1964	57	M	L	I	A, T	DM, VG
1964	16	M	L	I	S	DM
			R	I	A, S	DM, TEA, P
1965	19	M	L	I	T	DM, TEA
	26	M	R	I	T	DM, TEA, P
1965	21	F	L	I	T	DM, TEA, P
	28	M	L	I	A, T	TEA, P
	23	M	L	I	T	DM, TEA
	26	M	L	I	S	DM, TEA
1966	21	M	—	I	T	DM, TEA
1967	47	M	L	II	A, S	DM, VG
1969	39	M	L	I	T	DM, TEA
1969	20	M	R	I	S	DM
1970	17	M	L	I	T	DM, TEA
	18	M	R	I	T	DM, TEA, P
1971	18	M	L	II	T	DM, VG
1971	41	F	R	I	T	DM, AG
			L	I	S	DM, AG
1971	19	M	R	I	T	DM, TEA, P
			L	I	S	DM, AG
1971	16	M	R	II	T	DM, TEA, P
			L	II	S	DM
1971	37	M	R	II	A, T	DM, TEA
	37	M	R	II	T	DM
1972	17	F	R	II	S	DM
1972	23	M	L	I	T	None
1972	50	M	L	II	T	DM, TEA, BK
1973	47	M	L	II	T	DM, VG
1974	34	M	L	II	A, T	DM, VG, BK

(Present Case)

Abbreviations:

Complication: A—aneurysm; T—thrombosis, S—stenosis

Procedure: DM—division of muscle; TEA—thromboendarterectomy; VG—vein graft; P—patch angioplasty; AG—internal iliac artery graft; AK—above knee amputation; BK—below knee amputation; A—aneurysmorrhaphy

lesion. The usual symptom is claudication, although paresthesias<sup>5</sup> and acute ischemic symptoms<sup>7</sup> have been noted. Physical examination may reveal an absent popliteal pulse, a popliteal aneurysm, disappearance or diminution of the pulse with plantar or dorsiflexion of the ankle,<sup>5</sup> or an unusually warm knee.<sup>23</sup> If the vessel is patent, an arteriogram may reveal medial deviation of the artery (Type I), constriction during dorsiflexion, or an aneurysm. If the vessel is occluded, the arteriogram will probably not be diagnostic.

Early surgical intervention is indicated to prevent complications. Arterial occlusion occurred in two-thirds of the reported cases; post-stenotic dilatation and aneurysmal de-

generation have been reported in seven other cases. Although limb loss has occurred, collateral circulation is usually adequate to prevent this disastrous occurrence. In our case, thrombosis of the anomalous anterior tibial artery and distal tibial occlusion contributed to the severity of the ischemia.

The surgical procedure should be tailored to the degree of arterial damage noted. Delaney and Gonzales have pointed out that the medial approach has several distinct advantages.<sup>16</sup> The saphenous vein is readily available, the exposure is excellent, and the relationship of the popliteal artery to the medial head of the gastrocnemius muscle becomes quite clear. Division of the offending muscle or band may suffice if the vessel is minimally damaged. Thrombectomy, with or without vein patching, combined with the division of the muscle has been the most frequently performed procedure. It has been successful in most cases, but resulted in re-occlusion in a few. We prefer to resect the vessel and insert a reversed autogenous vein graft, because the degree of intimal damage will be greater than is recognized externally, and because the procedure is readily accomplished with excellent long-term patency.

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201 Lyons Avenue

## Medical Records to Chiropractors

Last year an Arizona physician asked the AMA if he had a legal duty to send a medical record to a chiropractor who was handling the patient. In abstract, the reply, from the AMA's General Counsel office, was as follows:

There are no reported court decisions recognizing any legal duty on the part of a physician to furnish records or copies to anyone, except under a subpoena in pending litigation, where the records are relevant to the disputed issues in the litigation.

In a few instances, courts have recognized a duty, arising out of the fiduciary relationship between the physician and the patient, to furnish to the patient such information as it is in the patient's best interest to know. None of these decisions has required delivery of complete medical records to anyone or indicated that a physician may not exercise professional judgment in deciding what information about his patient should be furnished and to whom it should be furnished.

Since chiropractic is a form of patient care not based upon medical science, the value of which has never been scientifically established, and since chiropractors, though licensed by the state, are not deemed to have the same grade of knowledge, training, and experience as is possessed by doctors of medicine, a physician has a right to consider these factors in determining, in the best interest of the patient, what medical information, if any, should be given to a chiropractor. No reported court decision has ever held that a physician must give medical information to a chiropractor.

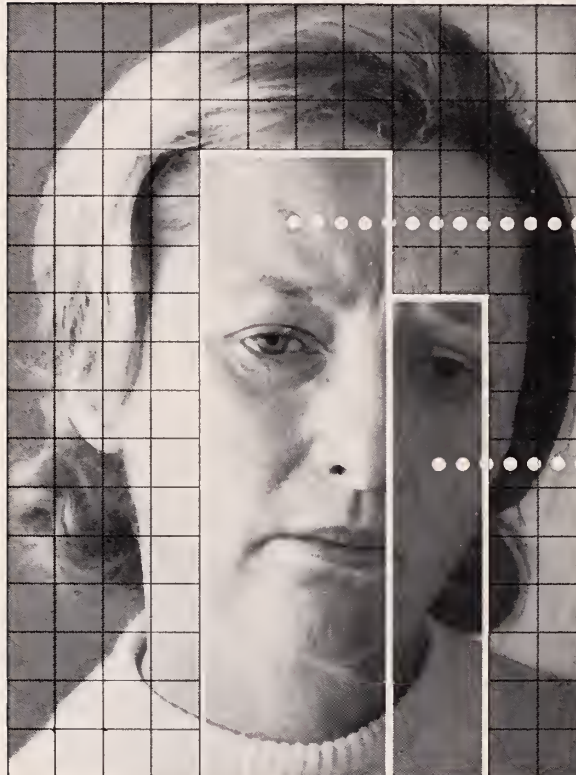
## Radiation Therapy Center at Hahnemann

The National Cancer Institute has designated Hahnemann Medical College and Hospital as a Radiation Therapy Center, one of only twelve such centers nationwide. Creation of the Center is embodied in a three-year grant awarded to the Department of Radiation Therapy and Nuclear Medicine at Hahnemann, which provides funding for three research programs: investigations into diagnostic radiopharmaceuticals, research into effects of radiation on carcinoembryonic antigen titer (CEA), and the evaluation of a tumor model for determining time-dose relationships in radiation therapy treatments.

The Department currently holds a two-year grant from the Milheim Foundation for research into diagnostic radiopharmaceuticals for pancreatic tumors. Also awarded to Hahnemann are a grant from the Greater Delaware Valley RMP to enable the Treatment Planning Center to complete an isodose measurement program in institutions in New Jersey and Pennsylvania which participate in the Center, and a two-year contract from the National Cancer Institute to evaluate the clinical application of electron radiography.



# Both after



Predominant  
psychoneurotic  
anxiety

Associated  
depressive  
symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) occurred following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Use with caution in alcohol-addicted individuals under c

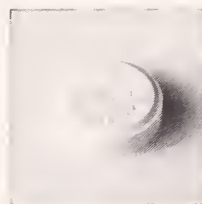
# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) can provide relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the anxiolytic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



## Valium<sup>®</sup> (diazepam) 2-mg, 5-mg, 10-mg tablets

in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

alliance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider the cumulative pharmacology of agents employed; drugs such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants may potentiate sedation. Usual precautions indicated in severely depressed, or with latent suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Thiamine HCL (B-1) .... 25 mg.	Thiamine HCL (B-1) .... 25 mg.	Thiamine HCL (B-1) .... 25 mg.
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<b>DOSE:</b> 1 to 5 tablets daily.		<b>DOSE:</b> 1 to 3 tablets daily.
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Indications: For use as a vasodilator in the symptoms of cold feet, leg cramps, dizziness, memory loss or tinnitus when associated with impaired peripheral circulation. Also provides concomitant administration of the listed vitamins. The warm tingling flush which may follow each dose of LIPO-NICIN 100 mg. or 250 mg. is one of the therapeutic effects that often produce psychological benefits to the patient. Side Effects: Transient flushing and feeling of warmth seldom require discontinuation of the drug. Transient headache, itching and tingling, skin rash, allergies and gastric disturbance may occur. Contraindications: Patients with known idiosyncrasy to nicotinic acid or other components of the drug. Use with caution in pregnant patients and patients with glaucoma, severe diabetes, impaired liver function, peptic ulcers, and arterial bleeding.

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# NEW JERSEY DOCTORS' NOTEBOOK

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## House of Delegates Special Session

Three hundred and nine delegates from the twenty-one county societies and fifteen fellows and officers of MSNJ participated in the special session of the House of Delegates, held on Sunday, December 8, 1974, in Piscataway, to reconsider Resolution #29 of the 1974 House of Delegates, which reads as follows:

RESOLVED, that membership in the American Medical Association be established as a condition for continued membership in The Medical Society of New Jersey and its federated county medical societies.

The session was called to order at 10:05 a.m. by President James A. Rogers, M.D., who also delivered the invocation. The gavel was then turned over to Henry J. Mineur, M.D., Speaker of the House. The following resolution submitted by the Board of Trustees was distributed to all delegates in advance of this meeting:

### Unified AMA Membership

Whereas, the Board of Trustees of The Medical Society of New Jersey reaffirms its support of Resolution #29, as adopted by the 1974 House of Delegates, and the concept of unified AMA membership as embodied therein; and

Whereas, the Board of Trustees respectfully urges the House of Delegates, meeting in special session, on December 8, 1974, to reaffirm the following:

RESOLVED, that membership in the American Medical Association be established as a condition for continued membership in The Medical Society of New Jersey and its federated county medical societies, effective January 1, 1975.

Gabor Somjen, M.D., delegate from Morris County, submitted a substitute resolution for consideration. The House voted (voice vote) not to consider this substitute resolution and, after brief discussion of the resolution offered by the Board of Trustees, James H. Brothers, III, M.D., delegate from Essex County, submitted the following substitute resolution, which the House voted to consider:

RESOLVED, that The Medical Society of New Jersey, and

each of its federated county societies, strongly recommend that each of their members also be a member of, and support the activities of, the American Medical Association.

Following approval of a motion to terminate debate, the House, by a 167 to 138 show-of-hands vote, adopted the substitute resolution.

James H. Sammons, M.D., Executive Vice-President Designate, and Russell B. Roth, M.D., Immediate Past-President, of the American Medical Association, were present to address the House on the importance of AMA membership. Because of inclement weather, their arrival was delayed and their statements to the House were made after the above-cited action had been taken. At the conclusion of their presentations, a motion was made for reconsideration of the resolution just adopted. A show-of-hands did not reveal the necessary two-thirds majority vote, and the motion was lost.

President Rogers thanked Doctors Sammons and Roth and the delegates for attending, and also Doctor Bergen, President of CMDNJ, for use of the College facilities.

## Trustees' Minutes

### November 17, 1974

A regular meeting of the Board of Trustees was held on November 17, 1974, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

*New Member . . .* Welcomed the newly appointed member of the Board of Trustees from the 1st Judicial District, Augustus L. Baker, Jr., M.D.

*Louis Keeler Collins, M.D. . . .* Observed a moment of silent prayer in tribute to Louis K. Collins, M.D., 175th President of MSNJ, and adopted the following memorial resolution:

Louis Keeler Collins, M.D.  
1911-1974

Whereas, after a rich life of distinguished and exemplary service as a renowned physician and outstanding medical leader, Louis Keeler Collins, M.D., our beloved colleague has been called to his eternal reward; and

Whereas, in his years as a member, Doctor Collins consistently rendered splendid service to The Medical Society of New Jersey, as President, Trustee, and Chairman of the Council on Medical Services, to name but a few of the offices he graced; and

Whereas, in his medical practice he always exemplified the attributes of a true humanitarian and distinguished physician; and

Whereas, by his gentle graciousness, ever-present humor and charming wit he won the affections of all with whom he came in contact; now therefore be it

RESOLVED, that The Medical Society of New Jersey, honoring Louis Keeler Collins, M.D., in death as in life, records its profound grief at his passing; and be it further

RESOLVED, that a copy of this resolution be spread upon the minutes of this meeting and that another copy, suitably prepared, be presented to his bereaved widow and family in token of heartfelt sympathy.

... Authorized a contribution to the Medical Student Loan Fund in memory of Dr. Collins.

*New Jersey Hospital Association* ... Directed that an appropriate elected trustee of the New Jersey Hospital Association be invited to attend meetings of MSNJ's Board of Trustees.

... Received as informative a report of the meeting between MSNJ's and NJHA's Executive Committees which resulted in agreement to seek a joint conference with the Governor to discuss the appointment of a practicing physician to the Health Care Administration Board and the decision not to endorse a rate-setting-quality assessment project being proposed by the State Department of Health unless granted meaningful input.

... Received as informative Dr. Madara's report of the November 13, 1974 meeting of NJHA Board of Trustees when the following actions were taken:

1. Voted to recommend to the special session of the Hospital Association on November 18, 1974 (1) continuation of rate review; (2) employment of a full-time legal assistant; (3) employment of an economist; (4) contingency for litigation; (5) continuation of NJUP, biomedical engineering programs, and health careers, and (6) an increase in dues for

each hospital in New Jersey of \$2,000, plus an added 10 percent over last year's dues.

2. Voted to endorse the Iowa pesticide survey of New Jersey hospitals.

3. Recommended that certified surgical assistants not be used in operating rooms.

4. Voted to urge the AHA to institute legislation to insure Medicaid reimbursement for outpatient services consistent with Medicare fees.

*Board of Medical Examiners* ... Directed that the President and the Chairman of the Board of Trustees of MSNJ appoint a physician-observer to attend the stated monthly meetings of the State Board of Medical Examiners.

*AMA National Leadership Conference* ... Approved the following recommendation:

That the Executive Committee and the Executive Director be authorized to attend the 1975 AMA National Leadership Conference at MSNJ expense.

*AMA Data Services* ... Approved the following recommendations concerning computer services available through the AMA — biographical, educational, directory compilation, billing, and others (any one or any combination):

1. That the Board of Trustees authorize the executive staff to work with AM-CAP (American Medical Computer Assistance Programs) representatives to implement this system, with a target date of June 1, 1975 for activation.
2. That the Business and Financial Manager be responsible to report to the 1975 Committee on Finance and Budget a detailed budget on the projected cost for the first year (fiscal year 1975-76) commencing June 1, 1975.

*Medical Kickback Rule* ... Noted that the State Board of Medical Examiners had adopted a rule prohibiting kickbacks, rebates, or receipt of payments for services not rendered. In its original form, Paragraph 2 requires disclosure of cost when the physician directly or indirectly charges the patient or third party for a device, appliance, or prescribed item. Physicians provide injectables and medications to office patients, the cost of which is computed in the office charge; it is virtually impossible to determine the cost factor of a single dose from the wholesaler and it would be unfeasible to comply with the requirement. MSNJ has offered constructive criticism; no response has been received.

... Instructed the Executive Director to obtain a copy of the ruling as adopted by the State Board of Medical Examiners on November 7, 1974.

*Publication Committee.* ... Approved the following recommendations from the Standing Committee on Publication:

That The Medical Society of New Jersey contract for the production of *The Journal*, MSNJ, with the Dartmouth Printing Company.

That The Medical Society of New Jersey withdraw from the State Medical Journal Advertising Bureau, Inc., and engage the services of United Media Associates, Inc., to represent *The Journal*, MSNJ, for solicitation of national pharmaceutical advertising.

*Blood Storage* ... Directed that the standards for phlebotomy supervisors adopted by the Red Cross Blood Bank of Eastern Pennsylvania and Southern Jersey be referred to the Ad Hoc Committee to Formulate Guidelines for the Uniform Procurement of Blood, for review and recommendation.

*Opposition to AMA Recommendations* ... Directed that the New Jersey Delegation to the AMA be apprised that MSNJ's Board of Trustees is opposed to the AMA Board of Trustees' recommendations concerning discontinuance of drug advertising in AMA journals, membership dues' increase, and dissolution of AMA councils and committees.

*Television* ... Authorized Mr. Johnson, Executive Assistant, to investigate the possibility of having "You're Okay, Hospitals Are Sick" televised in the Philadelphia area. (The program had been aired on Channel 7, New York, in the early Fall as reported at the September 15th meeting of the Board (November 1974 *Journal*, page 866).

*Physician Input in HRET* ... Directed that at the next joint meeting of the MSNJ and NJHA Executive Committees the subject of physician input to the HRET Board of Trustees dealing with general matters be discussed.

*Regional Advisory Group of NJRMP Vacancy* ... Directed that the Executive Committee be empowered to fill the vacancy on the Regional Advisory Group of the New Jersey Regional

Medical Program, created by the death of Louis K. Collins, M.D.

*Conflict of Interest* ... Directed that the Judicial Council be requested to formulate a general policy statement on what constitutes a conflict of interest for officers and trustees of the Society who are associated with agencies and concerns outside MSNJ.

*Note:* The above resulted from notice that Charles L. Cuniff, M.D., Secretary of MSNJ, will become a full-time employee of Blue Shield on November 18, 1974, and he asked if a conflict of interest exists.

## Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

The New Jersey Foundation for Health Care Evaluation reports that it is continuing to assist the eight PSRO's in New Jersey in their organization and development. As of this writing, the progress in these areas is as follows:

- Area I (Morris, Sussex, Warren): Funded by HEW for planning PSRO
- Area II (Passaic): Funded by HEW for planning PSRO
- Area III (Bergen): Proposal in preparation
- Area IV (Essex): Funded by HEW for planning PSRO
- Area V (Hudson): Proposal submitted
- Area VI (Union): Proposal submitted
- Area VII (Hunterdon, Mercer, Middlesex, Monmouth, Ocean, Somerset) Recently organized
- Area VIII (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Salem): Proposal in preparation

Two all-day seminars on PSRO were held in November, in cooperation with the New Jersey Hospital Association. These were well attended and well received. Staff members have been participating in meetings with hospital personnel, component medical societies, area PSRO's, and governmental agencies. We will be happy to meet with all interested parties.

Physicians are urged to join their respective PSRO's. Only by joining can *you* participate in the selection of its officers, bylaws, and so on. Membership in PSRO by a hospital's medical staff will be important in the delegation of review to that hospital. You will be reviewed whether or not you belong to the PSRO. For information, please communicate with NJFHCE, 315 West State Street, Trenton 08618.



## Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center of the New Jersey Regional Medical Program and the Brookdale Inter-regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, jointly compile the information contained in this column each month. The New Jersey component is located at the Valley Hospital in Ridgewood. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Following are questions and answers handled by the Center recently.

1. Do you have any information concerning the use of large doses of vitamins ("Mega-doses") in the treatment of schizophrenia?

Many of the symptoms of pellagra mimic those of schizophrenia, and because nicotinic acid and nicotinamide are effective in treating pellagra, it has been postulated that they may also be effective in the treatment of schizophrenia. More recently, it has been postulated that in schizophrenia there are metabolic alterations in transmethylation with possible production of unusual methyl derivatives of the brain amines. As nicotinic acid participates in the transmethylation process, an excess of nicotinic acid may help the schizophrenic patient maintain normal transmethylation pathways.<sup>1</sup>

In 1952, Osmond reported that large doses of nicotinic acid and ascorbic acid in six schizophrenic patients resulted in significant improvement or recovery.<sup>2</sup> The author reached

several conclusions concerning the use of nicotinic acid and nicotinamine in schizophrenia: (1) Early cases of schizophrenia respond better than chronic cases; (2) Longer treatment prevents relapse more effectively than short treatment; (3) Nicotinic acid is more effective than nicotinamide for the treatment of chronic schizophrenia; (4) Nicotinic acid potentiates the action of barbiturates, anticonvulsants, and tranquilizers; and (5) Nicotinic acid is remarkably safe and easy to administer.

In an uncontrolled study, Saarma, *et al.*,<sup>3</sup> supplemented the medication regime of twenty-four chronic schizophrenic patients with 3 grams of nicotinic acid a day. Clinical improvement (mainly in internal inhibitory activity) was seen in eight of the twenty-four patients.

Hoffer<sup>4</sup> described a case of a young woman who first showed signs of schizophrenia in childhood. After the diagnosis of a fulminating neurological form of schizophrenia was made, a daily regimen of nicotinic acid 3 grams, ascorbic acid 3 grams, riboflavin 100 milligrams, thiamine 300 milligrams, plus thioridazine (Mellaril®) 75 milligrams was begun. When the thioridazine was discontinued, she was stabilized solely by the larger doses of vitamins. The authors attributed the therapeutic effect to the nicotinic acid.

Smythies<sup>5</sup> suggested that nicotinic acid may be beneficial only in certain sub-types of schizophrenia, but *many other clinical studies have been unable to substantiate any claims made for the efficacy of nicotinic acid.*<sup>6,7</sup>

Side effects observed with large doses of nicotinic acid include chronic, mild flushing or itching; gastrointestinal symptoms such as nausea, vomiting, heartburn or diarrhea; duodenal ulcers; moderate to severe abnormalities in hepatic function; and abnormal glucose tolerance.

In conclusion, there are studies in the literature that point out that the use of large doses ("Mega-doses") of nicotinic acid in the treatment of schizophrenia is controversial. At this time, there is no clear-cut evidence that nicotinic acid is of value in the treatment of schizophrenia. Hopefully future large scale experiments will yield more definite results.

### References

- <sup>1</sup>Barborki J: The "mega-dose" vitamin controversy. *Drug Therapy* 115:119, May 1974.
- <sup>2</sup>Hoffer A and Osmond H: Nicotinamide adenine dinucleotide (NAP) as a treatment for schizophrenia. *J Psychopharmacology* 1:70-92, 1966
- <sup>3</sup>Saarma J and Vasar H: Nicotinic acid as an adjuvant in the treatment of chronic schizophrenic patients with special reference to changes in higher nervous activity. *Curr Ther Res* 12:729-733, November 1970.
- <sup>4</sup>Hoffer A: A neurological form of schizophrenia. *Can Med Assoc J* 108:186-194, January 1973.
- <sup>5</sup>Smythies JR: Nicotinamide treatment of schizophrenia. Letter to editor. *Lancet* 2:1450-1451 December 1973.
- <sup>6</sup>Anon: Nicotinic acid in the treatment of schizophrenia. *Med Letter* 15:107-108 December 1973.
- <sup>7</sup>Greenbaum G: An evaluation of niacinamide in the treatment of childhood schizophrenia. *Am J Psychiatry* 127:129-132 July 1974.

2. I understand that there is a progesterone-releasing intrauterine device (IUD). Please supply information concerning same.

Several progesterone-releasing IUDs are under investigation. One such device undergoing evaluation is Progestasert 65 System by Alza Corporation, the company which recently introduced Ocusert, a device for continuous control rate delivery of pilocarpine to the eye. Progestasert 65 is a T-shaped IUD which contains a progesterone reservoir and has been very effective in preventing pregnancies in clinical trials. (During a one year period, about one pregnancy occurred per 100 users.) Once placed in the uterus, the Progestasert 65 System releases an average of 65 mcg of progesterone daily for a period of 400 days.<sup>1</sup> (It is designed to function for one year and to be replaced at the time of the patient's physical examination.) The amount of progesterone released daily is a miniscule fraction compared to the amount secreted daily by the ovaries and to the progesterone activity contained in a one-day supply of an oral contraceptive, which would supply 20 to 25 years of fertility control when released by this system.<sup>2</sup>

The progesterone released locally in the uterine cavity, which has a short half-life, is rapidly metabolized as it traverses the endometrial layers. The deep layers would not be affected by the exogenous progesterone to the same extent as the superficial layers. Thus the systemic effects of oral contraceptives are said to be avoided and there is no effect on the occurrence or duration of the menstrual cycle which is still left under the control of endogenous hormones.<sup>1</sup>

Scommegna, *et al.*,<sup>3</sup> conducted a study on 249 women (greater than 1,600 women months experience) utilizing a T-shaped silicone polymer IUD that released an average of 128 mcg of progesterone per day to demonstrate the antifertility effects of intrauterine progesterone. Plasma hormonal assays and cervical mucus studies performed on selected patients were found to be normal, suggesting that the mechanism of activity was not connected with the inhibition of ovulation or with alteration in cervical mucus. No pregnancies occurred while the device was functioning properly and was present in the uterine cavity. However, three pregnancies did occur—one due to an expulsion of the device, a second because of a displaced IUD, and the third due to a faulty release system. This compares favorably to an accidental pregnancy rate of 18.3% in women utilizing a similar IUD without progesterone. The continuation rate of the device at the end of the first year was 72 percent. Among the major reasons for discontinuation was removal for medical reasons 6.4 percent, and removal for personal reasons 12.9 percent. These figures are very similar to the clinical results obtained with the Progestasert 65 System.<sup>1</sup>

## References

<sup>1</sup>Place VA and Pharriss BB: Progress in the development of the progestasert 65 progesterone therapeutic system for contraception. *J Reprod Med* 13:66-68 August 1974.

<sup>2</sup>Zaffaroni A: Special requirements for hormone-releasing intrauterine devices (paper read at the meeting on pharmacological models to assess toxicity and side effects of fertility regulating agents, September 1973, Geneva).

<sup>3</sup>Scommegna A, *et al*: Fertility control by intrauterine release of progesterone. *Obstet Gynecol* 43:769-779 May 1974.

3. Is Zoster Immune Globulin available?

Zoster Immune Globulin (ZIG) is again available for national distribution through Center for Disease Control (CDC) ZIG Program. Unlike previous years when ZIG of a single titer was distributed, ZIG will be distributed from 2 lots of differing titer according to a protocol investigating dose-efficacy relationships. Susceptible children with high-risk conditions (leukemia, lymphoma, immunodeficiency conditions, or treatment with immunosuppressive medications) who have been exposed to a confirmed active case of varicella (chicken pox) within the previous 72 hours are eligible for ZIG prophylaxis. In addition, ZIG will be available for the first time to neonates at high risk of congenital varicella; i.e. when maternal varicella first appears within 4 days before delivery. Adults, children with already established varicella-zoster infection, and children with previous history of varicella zoster infection are not eligible for ZIG prophylaxis.

Physicians caring for children who have been exposed to varicella and meet the above criteria should contact: Anne A. Gershon, M.D. or Philip A. Brunell, M.D., New York University Medical Center, New York 10016 (212) 561-5259 or (212) 369-5126 or Joel D. Meyers, M.D., Hospital of the University of Pennsylvania, Philadelphia 19104 (215) 662-4000 or (215) 848-4729

## Reference

Anon: Current trends Zoster immune globulin program—United States. *Morbidity and Mortality* 23:379 November 1974.

4. What is the status of propranolol (Inderal®) in the treatment of hypertension?

Propranolol (Inderal®, Ayerst), a beta-adrenergic blocking agent, is widely used in Europe and other countries as an antihypertensive agent. However, this drug is not officially approved for this purpose in the United States. Propranolol has been shown to be useful in the treatment of essential hypertension since 1964.<sup>1</sup> Since that time, many clinical studies have appeared in the literature indicating the usefulness of propranolol in the treatment of many forms of hypertension. Those with tachycardia or labile hypertension may respond especially well and perhaps also those with high plasma renin.<sup>2</sup>

Propranolol hypotensive effect has been explained by a number of different proposed mechanisms; such as, a decrease in cardiac output, heart rate, renin secretion, or plasma volume, a central nervous system mechanism, and "resetting" of the baroreceptors.<sup>3</sup> It apparently produces its hypotensive effect without many of the side effects (e.g., weakness, lethargy, sexual dysfunction, postural hypotension, dizziness, depression, and diarrhea) commonly caused by other antihypertensive agents.

Propranolol can be used alone to control hypertension, especially in mild cases, but combined treatment with a diuretic is more effective and probably less liable to cause dyspnea. The use of propranolol along with adrenergic neurone-blocking drugs (and usually with a diuretic also) is often successful. Combined therapy with a diuretic and a peripheral vasodilator appears to be promising. In general, blood pressure control in many patients is improved by the addition of propranolol to their existing regimen.<sup>2</sup>



Shoshkes<sup>4</sup> treated seventeen ambulatory hypertensive patients who had been unresponsive to standard antihypertensive therapy, administered singly or in combinations. He added propranolol in the dosages of 40 to 160 mg daily to the previous drugs, supplemented by strict dietary salt restriction. This combined drug therapy was found to have a superior blood pressure lowering effect in fifteen out of seventeen patients, and was uniquely free from side effects. He concluded that propranolol is a valuable addition in the combined antihypertensive therapy with multiple drugs.

Wilson, *et al.*<sup>5</sup> conducted a trial in twenty-four ambulant hypertensive patients selected on a random basis which fell predominantly into three groups: new untreated hypertensives; well controlled hypertensives on conventional therapy; and poorly controlled hypertensives taking large doses of one or more antihypertensive drugs and still having a diastolic blood pressure of 120 mm of mercury, or more, in the supine position. The statistical results revealed that a total of 17 patients out of 24 had a real blood pressure improvement with propranolol, when compared to a no-therapy situation; or were as well off when compared to previous treatment. Six patients showed a deterioration in blood pressure and three showed no change.

Lambert<sup>6</sup> treated thirty newly diagnosed hypertensive patients or those with troublesome side effects on existing treatment. The patients had no history of asthma or bronchospasm or evidence of cardiac insufficiency, and were treated with propranolol alone over a period ranging from two to eighteen months. The majority of these patients (80 per cent) showed a satisfactory control of blood pressure with no side effects. To determine if the reduction in blood pressure was due to propranolol, treatment was withdrawn for several months in 17 patients. Blood pressure rose in this group of patients toward pre-treatment levels. When propranolol therapy was reintroduced, satisfactory control was again achieved. The author concluded that propranolol would appear to be a valuable drug for the treatment of hypertension in general practice.

Zacest, *et al.*,<sup>7</sup> treated twenty-three ambulatory moderate or severe essential hypertensive patients with a combination of diuretic, propranolol and hydralazine (Apresoline<sup>®</sup>). In 20 of these patients blood pressure had not been satisfactorily controlled by diuretics, methyldopa (Aldomet<sup>®</sup>) and guanethidine (Ismelin<sup>®</sup>). Daily propranolol dosage was 80 to 160 mg (mean, 143) and that of hydralazine 40 to 400 mg (mean, 225). The mean blood-pressure reduction achieved by combined propranolol and vasodilation was 46/30 mm of mercury in the lying and 42/32 mm of mercury in the standing position. Diastolic arterial pressure was reduced below 100 mm of mercury in 21 patients and to 90 mm or less in 17 patients. This effective antihypertensive action was not associated with the usual adverse effects of antihypertensive agents. Because of this, the author concluded that there was strong patient preference for the use of the combination propranolol and hydralazine over sympathoplegic drugs.

Propranolol must never be used without due consideration of the patient's cardiac status or without inquiry concerning a history of bronchospasm or other chronic chest disease.<sup>8</sup> If these precautions are taken, and if diuretics and perhaps digitalis are used in patients with possible cardiac decompensation, the incidence of two serious side-effects (cardiac failure and asthma) is very low.<sup>2</sup> The high dosage and long-continued administration of propranolol used in the treatment of hypertension necessitates that a watch be kept for

side effects. Apart from cardiac failure and asthma (the incidence of which should be very low), mental depression, vivid dreams, or nightmares can occur, and Raynaud's phenomenon can be troublesome. Minor gastroenterological symptoms are not common.<sup>8</sup>

In conclusion, propranolol, an adrenergic beta-receptor blocker, appears to be an effective antihypertensive agent with relatively few side effects. It is not approved for this indication in the United States.

## References

- <sup>1</sup>Prichard BNC and Gillam PMS: Use of propranolol in treatment of hypertension. *Brit Med J* 2:725, 1964.
- <sup>2</sup>Simpson FO: Adrenergic receptor blocking drugs in hypertension. *Drugs* 7:85-105, 1974.
- <sup>3</sup>Anon: *American Hospital Formulary Service*, American Society of Hospital Pharmacists, Washington, D.C., 1974 24:04.
- <sup>4</sup>Shoshkes M: The use of propranolol with various drug combinations in the treatment of essential hypertension. *J Med Soc N J* 71:581-583, 1974.
- <sup>5</sup>Wilson L, *et al*: Trial of propranolol in hypertension. *Med J Aust* 1:212, 1974.
- <sup>6</sup>Lambert DMD: The use of propranolol in the treatment of hypertension. *Practitioner* 210:277-282, 1973.
- <sup>7</sup>Zacest R, *et al*: Treatment of essential hypertension with combined vasodilation and beta-adrenergic blockade. *N Engl J Med* 286:617-622, March 1972.
- <sup>8</sup>Meyler L and Herkheimer A: Side effects of drugs. *Excerpta Medica*. Amsterdam, Netherlands, 1972, p. 279-284.

## Death Certificate Requirements

The New Jersey State Registrar's office urges your continued cooperation in complying with the statute here quoted, which requires physicians to sign a death certificate within 24 hours after the pronouncement of death:

26-6-8. **Duty to furnish particulars; verification.** In the execution of a death certificate, the personal particulars shall be obtained by the funeral director from the person best qualified to supply them. The death and last sickness particulars shall be supplied by the attending physician, or if there be no attending physician, by the county physician, medical examiner or coroner. Within a reasonable time, not to exceed 24 hours after the pronouncement of death, the physician shall execute the medical certification. The burial particulars shall be supplied by the funeral director. The attending physician, county physician, medical examiner, or coroner, and the funeral director shall certify to the particulars supplied by them by signing their names below the list of items furnished.



Your attention is called also to the following administrative regulation of the State Board of Medical Examiners:

13:35-9.5. Pronouncement of death at a home or non-medical facility

(a) In the event of a death at a home, or a non-medical facility, an official pronouncement of the death shall be the primary responsibility of the attending physician or his designated substitute.

(b) Upon notification of a probable death, the attending physician or his designated substitute shall proceed without inordinate delay to the location of the presumed decedent and make the proper determination and pronouncement of the death. In no case shall a physician direct a funeral director or his representative to remove the presumed decedent from the premises until an official pronouncement of the death has been made.

(c) In cases of death within the jurisdiction of the county medical examiner, he shall without inordinate delay require the proper and established means for the pronouncement of the death, arrange for the removal of the body and completion of the death certificate.

(d) A physician who fails to comply with this rule shall be subject to disciplinary sanction in accordance with the Medical Practice Act.

# Physical Examinations for Medicaid Children

The New Jersey Health Services Program (Medicaid) has recently identified all eligible children up to 21 years of age who apparently have not received adequate medical care during the past year.

One of the primary goals of Medicaid is to direct children not currently under adequate care into the mainstream of medicine for early detection of preventable conditions and ongoing medical supervision. The cooperation of the medical profession is imperative to the success of this Medicaid goal.

All eligible children who have been identified as not having received adequate care under the New Jersey Medicaid Program during the past twelve months are being referred by county social service staffs to participating physicians or health facilities. Physicians are requested to accept such children, to perform a thorough

physical examination, schedule necessary further diagnostic or therapeutic services, and refer where indicated. (These procedures collectively are frequently referred to as Early Periodic Screening Diagnosis and Treatment — EPSDT).

The screening package consists of the following and is reimbursable at the usual and customary fee (maximum, \$21 for specialists and \$16 for generalists):

- Complete initial or interval history
- Measurements — height, weight, head circumference to age 25 months
- Physical and mental development
- Physical examination, including dental, vision and hearing screening, and blood pressure from age 3 up by physician or nurse practitioner under direct supervision of physician
- Immunization status and steps to update (biologicals available from biological stations)
- Referral of correctable abnormalities

The following laboratory procedures may be performed:

- Hemoglobin or hematocrit
- Tuberculin
- Urinalysis (no less than four test dipstick)\*
- Sickle-cell
- OVA and parasites on children recently removed from Puerto Rico
- Venipuncture for lead screening
- Others as indicated

Laboratory procedures performed by a physician in his office are reimbursable to the physician; if performed by outside laboratories, the laboratory must bill.

When submitting your claim for reimbursement, please use the standard Medicaid Physician's and Practitioner's Claim Form (MC-8). In item 12-D, insert the letters EPSDT or use the code 9580. Indicate diagnosis (es) in item 12-C. Laboratory procedures (performed by physician) may be billed on same claim but listed separately. If you have any questions, please contact the Physician Consultant at your Local Medicaid office.

\*Medicaid does not reimburse for dipstick test; microscopic tests are reimbursable.

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**RECOMMENDED GERIATRIC DOSAGE:** One capsule three times daily adjusted to the individual patient.

**WARNING:** Overdosage may cause muscle tremor and convulsions.

**CONTRAINDICATIONS:** Epilepsy or low convulsive threshold.

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\*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin J. Shuman, M.D.  
Double-blind study on the treatment of mentally confused patients. Reprinted  
from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

# Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during November 1974:

	1974 November	1973 November
Aseptic meningitis	15	23
Primary encephalitis	4	1
Hepatitis: Total	243	181
Infectious	87	79
Serum	74	48
Unspecified	82	54
Malaria: Civilian	3	0
Meningococcal meningitis	8	0
Mumps	33	82
German measles	8	6
Measles	98	141
Salmonella	142	152
Shigella	40	64
Tuberculosis	55	
Syphilis: Total	53	
Primary	16	
Secondary	37	
Gonorrhea	1303	

## Trichinosis

Trichinosis has been reported in sixteen New Jersey residents this year, which is considerably higher than the number of cases reported by most other states. In 1972, New Jersey reported 18 cases, the highest in the nation. Only six cases, however, were reported during 1973 and all but one had a history of eating raw fresh sausage.

This year's patients often revealed eating raw pork or sausage or eating sausage which was not adequately cooked. Sausage which was pickled or smoked was reportedly eaten in several instances. Other patients indicated that fresh sausage was barbequed or used to make meat balls and was probably not adequately cooked.

Patients' ages ranged from 22 to 64 years with an average of 43 years. There were four cases from Bergen County, three from Union County, two each from Mercer, Morris, and Passaic Counties, and one each in Middlesex, Monmouth, and Burlington Counties. One family outbreak involved three members; two other family outbreaks involved two persons in each instance. There were no significant findings with

regard to sex or date of onset of illness.

Diagnosis of an acute infection is based on a combination of clinical symptoms, skin and serologic tests, and muscle biopsy. During this year, with the investigations completed in ten cases, eosinophilia in excess of 10 percent was reported in five cases and usually exceeded 30 percent. One patient had a white cell count of 22,500/cu. mm. with an eosinophilia of 80 percent. Other symptoms include, in order of frequency, periorbital edema, myalgia, diarrhea, fever, chills, and conjunctivitis. Diagnosis was confirmed in three cases by muscle biopsy. The Bentonite Flocculation Test, which is available through the State laboratory, was used to confirm seven cases. Because false positive skin tests are not unusual, serologic tests and biopsy confirmation are preferred. At least eight cases had to be hospitalized for treatment.

The usual patient is foreign-born and probably developed his dietary habits prior to coming to the United States. The incidence of trichinosis in hogs is less in Europe because garbage is not fed and in some countries, such as Germany and Hungary, a biopsy is routinely performed on the diaphragm of every carcass during slaughterhouse inspection. In the United States, all pork is considered to be contaminated although the actual incidence is about one percent. The production of sausage, however, permits meat from many animals to be mixed together, thereby increasing the probability of contamination in a pork product such as fresh sausage. Garbage feeding of hogs, a common practice in the United States, enhances the probability of hogs becoming infected with trichina larvae since, among other items in the garbage, the pigs have access to infected raw meat scraps. This potential source of trichina larvae infection has been modified in many states by requiring that the garbage be heated sufficiently to kill them before it is fed to the hogs. The most significant reservoir of infection, however, is believed to be the rodent population which thrives on the garbage feeding farms and is subsequently consumed by other rodents and the hogs themselves.

With the treatment of each case, it must be taken into consideration that the patient may



not understand the significant hazard which accompanies eating raw or undercooked pork in the United States. He should be made fully aware that all pork must be adequately cooked regardless of other processing techniques which may be used, such as pickling or smoking the meat.

## CMDNJ Notes

Stanley S. Bergen, Jr., M.D.  
President, CMDNJ

From time to time on this page, I plan to ask members of our distinguished faculties to discuss subjects of mutual, current interest. An essay on such a subject was contributed to a recent issue of *Hospital Topics* by Erich Hirschberg, Ph.D., professor of biochemistry and associate dean for research and sponsored programs at the New Jersey Medical School, CMDNJ, Newark. Dr. Hirschberg discussed "Medical Research in a Hospital Setting: Luxury or Necessity?" The following is quoted from that article:

At a recent party the conversation turned from Watergate to another favorite topic, the escalating costs of medical care.

"One of the biggest factors in rising hospital costs," intoned the economist, "is the introduction of expensive equipment for diagnosis and research." The practicing physician said with some heat: "It's no wonder there are not enough doctors to go around, with so many of them preferring to spend their time in the laboratory and writing learned papers."

"Research should be left to the universities and the National Institutes of Health," suggested the rising young executive, and the editor of the local paper nodded and added: "Anyway, I'm not so sure I want to see human beings used as guinea pigs."

The invitation to contribute a brief article to this column provided a timely opportunity to summarize my thoughts on why medical research in a hospital setting is a necessity rather than a luxury.

In the development of curative or preventive measures for each of the disease entities afflicting mankind, there are several distinct but closely interrelated and often contemporaneous phases. The process starts with clinical observa-

tion and description and with the gradual definition of the essential features of the disease in terms of causation, properties, and patterns of occurrence. In most instances, a major effort is then devoted to the discovery or establishment of an animal model and its evaluation in comparison to the human condition.

A systematic examination of biochemical and physiological parameters in comparison and in relation to the normal cells of the host provides the basis for the development and evaluation of physical, biological, pharmacological, or surgical approaches to therapy. Those treatments that survive the selection process in the laboratory require examination in depth in a clinical setting, first in small numbers of patients under carefully controlled conditions and later in larger populations.

Progress against a particular disease is stimulated and channeled, of course, by the continued acquisition of knowledge in all the biomedical sciences, from basic research in chemistry and biology to the most applied aspects of clinical medicine.

The contributions of the biological sciences to human welfare have recently been summarized by a task force of the American Biology Council (Federation Proceedings 31 (6): Part 11, November-December 1972). This brief volume documents with cogency and eloquence the mutual interaction and nurturing of discoveries in the laboratory and in the clinic and the central role of both in the large-scale improvement of human health.

The increase in average life expectancy from 49 years at the turn of the century to 70 years in 1965 is only one of the more general results of the correlated efforts of thousands of scientists and physicians around the world. The virtual elimination of certain major diseases and the successful control or treatment of others has taken place in our lifetime because basic research and clinical application have progressed hand in hand in a climate of encouragement and support by government and the private sector which, except for some recent and, it is hoped, transitory aberrations, has been healthy, judicious, and sustained.

Hospital costs have risen precipitously, as my economist friend pointed out, but expenditures for research are only a small fraction of the total and have been repaid many times over in improved diagnosis, more effective treatment, and briefer hospital stays.

The doctor shortage troubling my physician friend has many causes and is being addressed vigorously by medical schools across the land. While they differ widely in educational philosophy and technique, they share a conviction that research, education, and patient care are the indissolubly linked components of the effective preparation and training of the physicians of tomorrow.

To relegate biomedical research to a few major centers, although it may appear to be a tidy administrative arrangement, would diminish the quality of medical care in all but a few hospitals and would prolong unnecessarily the interval between initial discovery and widespread application.

As for the local editor's concern over the ethical issues raised by the inclusion of patients in investigative programs, this continues to be the subject of intensive and extensive deliberation by physicians, scientists, clergymen, social scientists, lawyers, administrators, and representatives of the executive, legislative, and judicial branches of government and the general public.

The safeguards that have been established for thorough, independent review of clinical protocols, for informed consent, and for conscientious protection of the rights and safety of the individual have become an integral part of clinical investigation and are being further refined and extended. With the full application of these safeguards, the contribution of medical research in a hospital setting to the advancement of human health is bound to be greater and more widely recognized than in the productive decades of the recent past.

## PHYSICIANS SEEKING LOCATION IN NEW JERSEY

*The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.*

**CARDIOLOGY** — George E. Berk, M.D., Ridder Apts. 4-5, Apt. 3-D, Valley Road, Manhasset, N.Y. 11030. Cornell 1968. Board eligible. Group, institution, cardiac catheterization opportunity. Available July 1975.

Erich Schneider, M.D., 6632 Aintree Park Dr., Cleveland 44143. Porto Alegre (Brazil) 1964. Board eligible. Group or partnership. Available July 1975.

**GENERAL PRACTICE** — Chung-Hun Chang, M.D., Sacred Heart Hospital, Norristown, Pa. 19401. Seoul (Korea) 1966. Group or partnership. Available July 1975.

**INTERNAL MEDICINE** — Stanley F. Bernstein, M.D., 406 Hillside Ave., Boonton, N.J. 07005. CMDNJ 1972. Board eligible. Group or partnership. Available July 1975.

Augustin J. Schwartz, III, M.D., 14163 Castle Blvd., Apt. 403, Silver Spring, Md. 20904. Jefferson 1971. Board certified. Subspecialty, oncology. Group or partnership. Available July 1975.

Hui-Yen Chang, M.D., Dept. of Dev. Therapeutics, Anderson Hospital, Houston, Texas 77025. Taipei (Taiwan) 1966. Board eligible. Subspecialty, oncology. Group, partnership, or hospital. Available July 1975.

Deepak Sagger, M.D., 4653 Walford Rd., Warrensville Hgts., Ohio 44128, Ludiana (India) 1970. Board certified. Solo, partnership, or group. Available June 1975.

Jerome H. Seigel, M.D., 9 Washington House, 20 Basil St., London SW 3, England. Georgia 1960. Subspecialty, gastroenterology and liver disease. Board eligible. Partnership or space-sharing. Available July 1975.

Mohammad A. Khan, M.D., 1175 Mathis Ferry Rd., Apt. 2, Mt. Pleasant, South Carolina 29464. Khyber (Pakistan) 1968. Subspecialty, infectious disease. Group or hospital in small or medium-sized community. Available July 1975.

N. K. Thada, M.D., 1770 Grand Concourse, Apt. 6-F, Bronx, New York 10457. Siriraj (Thailand) 1969. Board certified. Subspecialty, hematology. Solo. Available July 1975.

Arnold M. Rochwarger, M.D., 445 East 68th St., Apt. 8-0, New York 10021. Einstein 1968. Board certified. Subspecialty, gastroenterology. Partnership or group. Available July 1975.

Scientific Exhibit Application

See page 67

**OBSTETRICS AND GYNECOLOGY** — Iqbal Karim M.D., 509 Lafayette Ave., Apt. 6, Buffalo, N.Y. 14222. Dow (Pakistan) 1970. Solo, partnership, or group. Available July 1975.

**OPHTHALMOLOGY** — Noparat Sujaritchan, M.D., 47-25 49th Street, Woodside, New York 11377. Siriraj (Thailand) 1968. Board eligible. Solo or partnership. Available July 1975.

**ORTHOPEDIC SURGERY** — Muhammad Umar, M.D., 1945-25G Eastchester Rd., Bronx, N.Y. 10461. King Edward (Pakistan) 1969. Board eligible. Group, partnership, or solo. Available July 1975.

Robert M. Sheridan, M.D., 18 Pickwick Rd., Dewitt, New York 13214. Board eligible. Association or Group. Available July 1975.

**PATHOLOGY** — Lorraine Roth-Moyo, M.D., 101 Humber College Blvd., Toronto (Rexdale), Ontario, Canada. Ottawa 1970. Board certified—AP and CP. Hospital or group. Available Spring 1975.

**PEDIATRICS** — Daniel J. Rowe, M.D., 27212 Calaroga Ave., Hayward, Calif. 94545. New Jersey School of Medicine, CMDNJ, 1965. Board certified. Group. June 1975.

Bhushan C. Gupta, M.D., 605 East 14th Street, Apt. 9-G, New York 10009. Amritsar (India) 1969. Subspecialty, pediatric allergy. Board eligible. Solo, associate, partnership. Available July 1975.

Hsinn-Hong Wang, M.D., 81-44 168th Street, Jamaica, New York 11432. Taiwan, 1967. Subspecialty, neonatology. Board eligible. Group, partnership, or hospital. Available July 1975.

Melvin I. Katz, M.D., 8 Hallmark Gardens, Burlington, Mass. 01803. NYU 1970. Board eligible. Group, partnership, or multispecialty clinic. Available July 1975.

**RADIOLOGY** — Christopher B. H. Gouw, M.D., 594 North St., Teaneck 07666. Indonesia 1961. Board eligible. Available July 1975.

**SURGERY** — Stephen Green, M.D., 6938 Post Street, Edwards AFB, California 93523. NYU 1966. Board certified. Solo or partnership, northeastern part of State. Available July 1975.

Steven A. Dressner, M.D., 435 E. 70th St., Apt. 9-K, N.Y. 10021. Cornell 1968. Board eligible. Subspecialty vascular surgery. Solo, group, partnership, hospital. Available May 1975.

Arieh Kaynan, M.D., 1249 Park Ave., Apt. 2-B, New York 10029. Hadassah (Israel) 1965. Board eligible. Subspecialty, vascular surgery. Group or institution. Available July 1975.

Hermenegildo D. Ante, M.D., 890 Berkshire Dr., Westbury, N.Y. 11590. Manila 1953. Board eligible. Group. Available.

Chi-Hong Yang, M.D., 2116 8th St., Cuyahoga Falls, Ohio 44221. Taipei 1970. Board eligible. Group, partnership, or solo. Available July 1975.

G. P. Sison, Jr., M.D., P. O. Box 364, Willsboro, New York 12996. Santo Tomas (Philippines) 1962. Board certified. Group, partnership, solo, institution. Available.

Allen B. Davis, M.D., Oak Hill Apts E-211, Hagy's Ford Road North, Penn Valley, Pa. 19072. Jefferson 1970. Board eligible. Group or partnership. Available July 1975.

**UROLOGY** — J. M. DeCento, M.D., Woodbine Road, Shelburne, Vermont 05482. Vermont 1973. Association. Available July 1975.

Joel W. Goldsmith, M.D., 5700 Arlington Ave., Bronx, N.Y. 10471. SUNY Downstate 1971. Board eligible. Solo or partnership. Available July 1975.

Stefan Loening, M.D., 9500 Euclid Ave., Cleveland, Ohio 44106. Freiburg (Germany) 1965. Board eligible. Group, partnership, or solo. Available October 1975.

Aurelio Benavides, M.D., 733 Marshall Dr., Erie, Pa. 16505. Javeriana (Bogota, Colombia) 1970. Board eligible. Group or partnership. Available July 1975.

John R. Whittaker, M.D., 3411 Wayne Ave., Bronx, N.Y. 10467. Cincinnati 1969. Board eligible. Partnership or solo. Available July 1975.

Bhalchandra Dave, M.D., 230 Jay St., Brooklyn, N.Y. 11201. Gujarat (India) 1968. Associate, partnership, group, solo. Available 1975.

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# THE MEDICAL SOCIETY OF NEW JERSEY

## 209th Annual Meeting

GARDEN STATE PARK CONVENTION CENTER, CHERRY HILL, NEW JERSEY

### APPLICATION FOR SPACE IN THE SCIENTIFIC EXHIBITS

May 31-June 2, 1975

The Committee on Scientific Exhibits will furnish uniform, painted signs for each exhibit—if requested by exhibitor. Please fill in the following form carefully. (use *typewriter*, or *print*, please)

1. TITLE (Generic names only): .....

Full Name and Degree of Exhibitor(s) .....

City ..... State .....

Institution (if desired) ..... City .....

Aided by commercial or pharmaceutical company .....

Exhibit constructed by: .....

2. DESCRIPTION OF EXHIBIT: Please give a brief statement telling the purpose of the exhibit, what it shows, and the conclusions reached—use generic names only. (This is for publication in the printed program.)

3. Is the exhibit free-standing or self-contained? .....

4. SIGN required: ..... SIGN *not* required: .....

5. Will backwall and dividers be required? (see sketch on reverse side): .....

6. SIZE OF BOOTH REQUESTED (See sketch on back) ABSOLUTE MAXIMUM: length 15', depth 8'.

Desired inside clear backwall (8 to 15 feet) ..... Minimum inside clear blackwall .....

7. PHOTOGRAPH OR SKETCH of exhibit should accompany this application. ....

8. Has this exhibit been shown in whole or part at any other scientific meeting? .....

If so, when? ..... and where? .....

The undersigned agrees to abide by the regulations listed.

Name .....

Address .....

Date: .....

Return application to Francis X. Keeley, M.D., Chairman, Scientific Exhibits, The Medical Society of New Jersey,  
P.O. Box 904, Trenton, New Jersey 08605

**COMPLETE ALL ITEMS ON BOTH SIDES OF FORM**

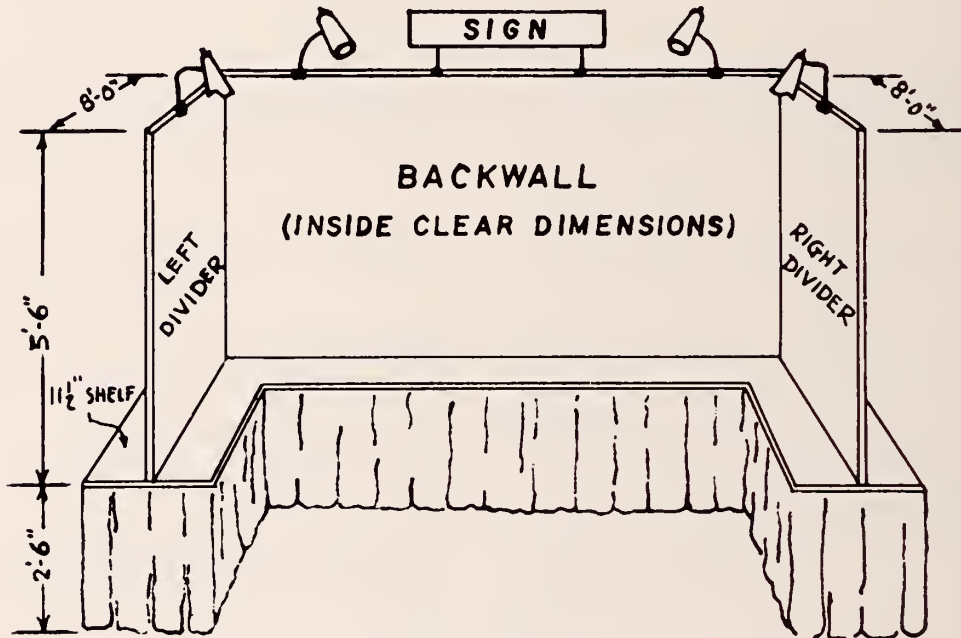
# STANDARD EQUIPMENT REQUISITION FORM

Use this form only in connection with equipment to be supplied by the Committee on Scientific Exhibits. Equipment listed below will be provided at no charge to exhibitors. However, it is important that you anticipate your exact requirements in advance, as last minute changes are costly to the Society.

All scientific booths will be erected with backwall and dividers as illustrated below. Shelving and overhead lights are optional.

## ILLUSTRATION OF TYPICAL BOOTH

(Booth construction: composition board covered with burlap)



Check appropriate boxes:	left divider		backwall		right divider	
Shelving	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> yes	<input type="checkbox"/> no
Overhead lights	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> yes	<input type="checkbox"/> no

If your exhibit will not require backwall, or left or right dividers, please advise.

If a sign is incorporated with your exhibit, please advise, and one will not be ordered for you.

**COMPLETE ALL ITEMS ON BOTH SIDES OF FORM**

### Helping Hand Organization

Many of the younger physicians do not know that there exists in our State a unique helping hand organization — the Society for the Relief of Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance to the dependents of a deceased member. It lends money without interest to widows and orphans of doctors who have known adversity. For details, please write to the Society at P.O. Box 95, Belleville, New Jersey 07109.

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## LETTERS TO THE JOURNAL

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### Caution on Digestive Agent

October 21, 1974

Dear Dr. Krosnick:

In the October issue of *The Journal*, Dr. Grundfest (Grundfest J: Unique treatment of an impacted foreign body. *The Journal of The Medical Society of New Jersey* 71:792, 1974) described the use of an enzymatic digestive agent to dissolve food impacted in a 57-year-old male esophagus.

Although esophagoscopy is not without risk, neither is the use of digestive agents.<sup>1, 2</sup> We at the Chevalier Jackson Clinic here in Philadelphia recommend peroral esophagoscopy for removal of a foreign body where it is possible.

<sup>1</sup>Alford B R, Johnson R L, Harris H H: Penetrating and perforating injuries of the esophagus. *Trans Amer Branch Esophago Ass* 433:112, 1963

<sup>2</sup>Andersen H A, Bernatz P E, Grindlay J H: Perforation of the esophagus after the use of a digestive agent. *Trans Amer Branch Esophago Ass* 39:80, 1959

(signed) Myles G. Turtz, M.D.  
(Associate Professor, Chevalier Jackson Clinic)

### The Dreaded "Ya Know"

October 15, 1974

Dear Sir:

It's as contagious as chickenpox and as stubborn to cure as psoriasis.

Now this isn't any earth-shaking, new disease entity but it surely is annoying. Over the past couple of years it has spread across the USA as completely and as devastatingly as a horde of locusts. Butcher, baker, candlestick maker, doctor, lawyer, Indian Chief — you name it, no one has escaped the scourge.

Just listen to almost any conversation, anytime, any place — on the radio, TV, in the backyard, conference room, supermarket, ball field. It is sad to say most people can't speak three sentences without interjecting that profound cliché — "Ya Know." It seems that without this crutch, most people would be tongue tied and would remain speechless, perhaps a humane end-result.

There is a radio station in this locality which features two-way talk shows. The sports expert personality and his telephone guest recently set probably a world's "Ya Know" utterance record. They were clocked at 53 "Ya Knows" in 3 minutes! The habit is so well ingrained that the record holders were oblivious of their accomplishment.

There is a possible solution for the cerebral constipation which harbors this dreaded affliction. If, in any applicable situation, when a "Ya Know" surfaces, it should be immediately greeted with a "beep beep."

Now this may seem officious to some but, be that as it may, it works and it can be fun in correct settings. It simply calls attention to this unconsciously uttered phrase and the afflicted just tries a little harder. Of course this remedy may produce a batch of blithering idiots but if you have been touched by this dreaded problem, almost any substitution would be a refreshing change, ya know (beep beep).

Start an anti "Ya Know" campaign — try the antidote — you may like it — it is effective.

Paul H. Steel, M.D.



# ANNOUNCEMENTS

## Neuroscience Unit Conferences

The Neuroscience Unit of the Bergen Pines County Hospital in Paramus announces the following programs in its series of conferences. Additional programs will be listed in a later issue of *The Journal*.

January 13	Seizure Disorders
January 20	Neurology Neurosurgery Conference
January 22	Approaches to Neurological Disorders
January 27	Parkinsonism

Sessions are held from 11:30 a.m. to 12:30 p.m. in the auditorium at the hospital. Accreditation for Category I of the AMA Physicians' Recognition Award is pending. For additional information, please communicate with Leonard J. Lyon, M.D., Co-director of Medical Education at Bergen Pines County Hospital Paramus 07652.

## Neurology-Neurosurgery Conference

The Pascack Valley Hospital in Westwood announces the following in its series on joint conferences in neurology and neurosurgery.

January 13	Spinal cord tumors
February 10	Determination of cerebral death
March 10	Neurosurgical clinical pathology
April 14	Epileptics
May 12	Severe head injury — neurosurgical viewpoint
June 9	Severe head injury — medical viewpoint

Programs are held on the second Tuesday of each month from 11:30 a.m. to 12:30 p.m. and are fully accredited for category I of the AMA Physicians' Recognition Award. For further information, please write to the hospital or to Andrew L. Bender, M.D., 400 Old Hook Road, Westwood 07675.

## Pulmonary Disease Lectures

The Veterans Administration Hospital in East Orange and the New Jersey Medical School, CMDNJ are co-sponsors of a 1974-1975 series of lectures in pulmonary diseases, to be held on Wednesdays at 11:30 a.m. at the Veterans Ad-

ministration Hospital, East Orange, on the dates indicated.

January 15	Rifampin, Tuberculin
February 19	Chemical Control of Respiration
March 19	Cor Pulmonale
April 16	Infectiousness of Tuberculosis before and after Chemotherapy
May 14	Respiratory Failure

## CMDNJ Workshop on Health Care Teams

The College of Medicine and Dentistry of New Jersey is featuring a series of workshops for physician and nurse hospital educators to help hospitals in implementing the team approach to patient care. All workshops are held at the Rutgers Medical School in Piscataway. The schedule is as follows:

January 17 (all day) — The Selection and Use of Media for Teaching in Hospital Settings

March 12 (afternoon) — Utilizing Evaluation Techniques To Improve Learning

March 18 and April 8 — Applying the Systems Approach to Hospital Education for Physicians and Nurses

The above two-part program is cosponsored by the Academy of Medicine of New Jersey, the New Jersey State Nurses Association, and the New Jersey Hospital Association. Individual tuition is \$60 for both workshops (including luncheons), or \$100 per team (one physician and one nurse).

April 24 — Organization of a Department of Continuing Medical Education in the Community Hospital

Additional information is available through the Office of Continuing Medical Education, CMDNJ, University Heights, Piscataway, New Jersey 08854.

## Current Topics in Psychiatry

The Fair Oaks Hospital in Summit announces the following programs in the 1974-1975 series on current topics in psychiatry. Dates and topics of subsequent sessions will be announced in future issues of *The Journal*.

January 22	Special Patient Syndrome
February 5	Neurology
February 19	Reforms of 18th and 19th Century Mental Hospitals

Sessions are held from 3 to 4:30 p.m. in the Conference Room at the Hospital (19 Prospect Street). Granville L. Jones, M.D., Director of Research and Education at Fair Oaks, will be moderator and further information is available by writing directly to him.

The programs are co-sponsored by the Academy of Medicine and are accredited for Category I of the AMA Physician's Recognition Award.

**Symposium on Contemporary Medicine and Surgery**

From March 2 to 7, 1975, at the Americana Hotel in Bal Harbour, Florida, the American Society of Contemporary Medicine and Surgery will convene its annual scientific assembly for a program on "The Best of Contemporary Medicine and Surgery." Subjects to be considered include cancer, cardiovascular disease, anticoagulants, pacemakers, pain, infectious diseases, hypertension, diabetes, pulmonary disease, nutrition, cryotherapy, plastic surgery, and the involvement of the Federal government in medicine. In addition to formal presentations, there will be small group discussions with the speakers available for individual questions. The program is accredited for AMA CME Category I on an hour-for-hour basis. For further information and a complete program please write to John G. Bellows, M.D., 30 North Michigan Avenue, Chicago 60602.

**Surgeons To Meet in Atlanta**

The Spring meeting of the American College of Surgeons will be held April 21 to 24 in Atlanta, Georgia. Designed to supplement and complement the offerings of its annual clinical congress, emphasis will be on eight formal postgraduate courses:

- Fluid, Electrolyte, and Acid-Base Balance
- Gynecologic Infections
- Abdominal Trauma
- Applications of Computers for Surgeons
- Cancer of Colon and Rectum
- Trauma to the Eye and its Adnexae
- Respiratory Failure in Surgery
- Peripheral Vascular Disease

In addition, there will be general lectures, panel discussions, and symposia on such topics as: minimal breast cancer, gynecology, biliary surgery, inguinal and ventral hernias, and the thyroid.

Fellows in good standing, ACS candidates, and surgical residents and interns may register without charge. The registration fee for those whose dues have not been paid, applicants, and guest physicians is \$55; non-Fellows in fulltime Federal service may register for \$30. Registered nurses and medical students may attend the general sessions without charge. There is an additional \$40 fee for each of the postgraduate courses. For additional information, please write to S. Frank Arado, American College of Surgeons, 55 East Erie Street, Chicago 60611.

**209th Annual Meeting**

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**DESCRIPTION:** Methyltestosterone is 17 $\beta$ -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunuchism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Postpubertal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGO levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating male for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency 10 to 40 mg.; Postpubertal cryptorchidism, 30 mg. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250.

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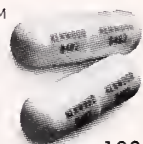
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- Direct vasodilating effect on cerebral vasculature
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**Cebral**<sup>TM</sup>  
ethaverine HCl



100 mg capsules

**Indications:** For the relief of cerebral and peripheral ischemia associated with arterial spasm.

**Contraindications:** The use of ethaverine hydrochloride is contraindicated in the presence of complete atrioventricular dissociation.

**Precautions:** Use with caution in patients with glaucoma. Hepatic hypersensitivity has been reported with gastrointestinal symptoms, jaundice, eosinophilia and altered liver function tests. Discontinue drug if these occur.

The safety of ethaverine hydrochloride during pregnancy or lactation has not been established; therefore it should not be used in pregnant women or in women of childbearing age unless, in the judgment of the physician, its use is deemed essential to the welfare of the patient.

**Adverse Reactions:** Although occurring rarely, the reported side effects of ethaverine include nausea, abdominal distress, hypotension, anorexia, constipation or diarrhea, skin rash, malaise, drowsiness, vertigo, sweating, and headache.

**Dosage and Administration:** One capsule three times a day.

**How Supplied:** 100 mg capsules in bottles of 50 and 500.

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# Synthroid<sup>®</sup>

(sodium levothyroxine)

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**Synthroid is T<sub>4</sub>.**  
It provides your patients with  
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**Indications:** SYNTHROID (sodium levothyroxine) is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. Indications for SYNTHROID (sodium levothyroxine) **Tablets** include myxedema, hypothyroidism without myxedema, hypothyroidism in pregnancy, pediatric and geriatric hypothyroidism, hypopituitary hypothyroidism, simple (nontoxic) goiter, and reproductive disorders associated with hypothyroidism. SYNTHROID (sodium levothyroxine) **for Injection** is indicated for intravenous use in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. The injection is also indicated for intramuscular use in cases where the oral route is suspect or contraindicated due to existing conditions or to absorption defects, and when a rapid onset of effect is not desired.

**Precautions:** As with other thyroid preparations, an overdosage of SYNTHROID (sodium levothyroxine) may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, such as Addison's Disease (chronic adrenocortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug

should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiac disease requires a reduction in dosage.

**Contraindications:** Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are in being manifested. Side effects, when they occur, are secondary to increased rates of metabolism; sweating, heart palpitations or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have been observed. Myxedematous patients with heart disease have died from abrupt increase in dosage of thyroid drugs. Careful observation of the patient during the beginning of antithyroid therapy will alert the physician as to untoward effects.



It has been shown that *Synthroid* (T<sub>4</sub>) converts to T<sub>3</sub> at the cellular level to supply metabolic needs.<sup>1, 2</sup>

1 *Synthroid* is T<sub>4</sub>.

2 Because T<sub>4</sub> converts to T<sub>3</sub> at the cellular level, it provides full thyroid replacement at maintenance doses.<sup>1, 2</sup>

3 T<sub>4</sub> hormone content is controlled by chemical assay.

4 *Synthroid* is assayed chemically; no biologic test is necessary to measure potency.

5 *Synthroid* provides predictable results when used with current thyroid function tests.

6 *Synthroid* is the most prescribed brand name of thyroid in the U.S. and Canada.

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8 When stored properly, *Synthroid* has a longer shelf life than desiccated thyroids.

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(sodium levothyroxine)

In most cases with side effects, a reduction of dose followed by a more gradual adjustment of dose will result in a more accurate indication of the patient's dosage requirements without the occurrence of side effects.

**Dose and Administration:** The activity of 0.1 mg. SYNTHROID (sodium levothyroxine) is equivalent to approximately one grain of desiccated thyroid, U.S.P. Administer SYNTHROID tablets as a single daily dose. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is achieved. Clinical evaluation should be made by T<sub>4</sub> and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, the initial dose should be 0.025 mg. daily. The

dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

**Supplied:** Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) for Injection may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

1. Braverman, L. E., Ingbar, S. H., and Sterling, K.: Conversion of Thyroxine (T<sub>4</sub>) to Triiodothyronine (T<sub>3</sub>) in Athyreotic Human Subjects, *J. Clin. Invest.* 49:855-64, 1970.

2. Surks, M. I., Schadow, A. R., and Oppenheimer, J. H.: A New Radioimmunoassay for Plasma L-Triiodothyronine: Measurements in Thyroid Disease and in Patients Maintained on Hormonal Replacement. *J. Clin. Invest.* 51:3104-13, 1972.



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TABLETS—1 tablet 3 times a day or as directed by physician.

**Supplied:** 12 ounce bottles of Elixir; bottles of 100 Tablets.

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**Tablets**—each tablet contains: Ferrous Gluconate, 5 gr • Vitamin C, 60 mg • Cyanocobalamin (Vit. B12), 10 mcg • Liver Fraction 2, 2 gr • Thiamine Hydrochloride, 2 mg • Riboflavin, 2 mg • Nicotinamide, 20 mg



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# MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

Jan.

## Orthopedic Surgery

- 11 8:30 a.m. — Martland Hospital, Newark
- 18 *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*

## Basic Science for Surgeons

- 11 10 a.m.-12 noon — Martland Hospital, Newark
- 18 *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*

## Distinguished Lectures in Surgery

- 13 4-5 p.m. — Martland Hospital, Newark
- 20 *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*

## Seizure Disorders

## Neurology-Neurosurgery Conference

## Parkinsonism

- 11:30 a.m.-12:30 p.m. — Bergen Pines County Hospital, Paramus
- (Sponsored by Hoffmann-La Roche, Inc., and Bergen Pines County Hospital)*

## Neurology-Neurosurgery Conference

- 11:30 a.m. — Pascack Valley Hospital, Westwood
- (Sponsored by Pascack Valley Hospital and Academy of Medicine)*

## Genetic Aspects of Aging Process — 4-5 p.m.

## Cellular Mechanisms of Aging Process — 5-6 p.m.

## Free Radical Mechanism of Aging Process — 4-5 p.m.

## Metabolic Changes in Senescence — 5-6 p.m.

## Obesity and Age-Related Changes in Lipid Metabolism — 4-5 p.m.

## Age-Related Alterations in the Immune System — 5-6 p.m.

- Martland Hospital, Newark
- (Sponsored by New Jersey Medical School, CMDNJ)*

## Renal Failure

- 8 p.m. — Paul Kimball Hospital, Lakewood
- (Sponsored by Paul Kimball Hospital and Academy of Medicine of New Jersey)*

## Cutaneous Manifestations of Systemic Disease

- 8 p.m. — White Laboratories, Schering Corporation
- (Sponsored by New Jersey Dermatology Society and Academy of Medicine)*

## Fluid and Electrolyte Imbalance

- 10:30 a.m. — North Hudson Hospital, Weehawken
- (Sponsored by Academy of Medicine)*

## Joint Monthly Sessions of Clinical Interest

- 7-9 p.m. — VA Hospital, East Orange
- (Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)*

## Proper Use of Antibiotics

- 2 p.m. — Cherry Hill Medical Center, Cherry Hill
- (Sponsored by Academy of Medicine)*

## Neurology

- 1 p.m. — Trenton Psychiatric Hospital, Trenton
- (Sponsored by Academy of Medicine)*

## Utilization of Psychotropic Drugs

- 8:15 p.m. — Overlook Hospital, Summit
- (Sponsored by Overlook Hospital and Academy of Medicine)*

## Juvenile Arthritis

- 2 p.m. — Christ Hospital, Jersey City
- (Sponsored by Christ Hospital, AAFP, and Academy of Medicine)*

## South Jersey Regional Care Conferences

- 7:30-9:30 p.m. — West Jersey Hospital, Eastern Division, Voorhees Township
- (Sponsored by New Jersey Thoracic Society and Academy of Medicine)*

## Post Graduate Course in Cardiology

- 10 a.m.-2:30 p.m. — St. Michael's Medical Center, Newark
- (Sponsored by St. Michael's Medical Center and Academy of Medicine)*

## Advances in Medicine

- 9:30-11 a.m. — Bergen Pines County Hospital, Paramus
- (Sponsored by Bergen Pines County Hospital and Academy of Medicine)*

## Distinguished Lectures in Neuroscience

- 10:30-11:30 a.m. — VA Hospital, East Orange
- (Sponsored by CMDNJ, New Jersey Medical School, VA Hospital at East Orange, and Academy of Medicine)*

## 1974-75 Medical Lecture Series

- 9-11 a.m. — Riverview Hospital, Red Bank
- (Sponsored by Riverview Hospital and the Academy of Medicine)*

## Portal Hypertension

## Inflammatory Bowel Disease

## Common Disease of Travelers

- 9-11 a.m. — Middlesex General Hospital, New Brunswick
- (Sponsored by Middlesex General Hospital and Academy of Medicine)*

## Rifampin, Tuberculin

- 11:30 a.m.-1 p.m. — VA Hospital, East Orange
- (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*

- 15 Clinical Interpretation of Diagnostic Laboratory Tests
- 29 3:30-5:30 p.m. — Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ, Rutgers Medical School and Academy of Medicine)
- Clinical Endocrinology
- 15 3:30 p.m. — Martland Hospital, Newark Beth
- 22 Israel, and VA Hospital, East Orange (varies)
- 29 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 16 Graduate Teaching Programs 1974-75
- 4:30-6:30 p.m. — Somerset Hospital, Somerville  
(Sponsored by Somerset Hospital and Academy of Medicine)
- 16 1974-75 Lecture Series
- 1 p.m. — Hunterdon State School, Clinton  
(Sponsored by Hunterdon State School and Academy of Medicine)
- Clinical Nephrology
- 23 4-5 p.m. — Martland Hospital Unit, Newark
- 30 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 17 Workshop — Clarification of Values by Health Care Teams  
CMDNJ-Rutgers Medical School, Piscataway  
(Sponsored by CMDNJ)
- 17 Antihypertensive Agents
- 2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 17 Alcoholism
- 9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 20 Medical-Legal Aspects of Medicine and Surgery
- 8 p.m. — Irvington General Hospital, Irvington  
(Sponsored by Academy of Medicine)
- 21 Laboratory Interpretations
- 11:30 a.m. — St. Mary's Hospital, Irvington  
(Sponsored by Academy of Medicine)
- 21 Chest Case Conferences
- 7:30 p.m. — VA Hospital, East Orange  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 21 Cardiac Surgery and Anesthesiology
- 6-9 p.m. (dinner meeting) — Ramada Inn, Clark  
(Sponsored by New Jersey Society of Anesthesiologists and Academy of Medicine)
- 22 Educational Seminars
- 9:30 a.m.-12 Noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospitals, and Academy of Medicine)
- 22 Ultrasound in Diagnostic Medicine
- 2-4 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital, AAFP, and Academy of Medicine)
- 23 Coronary Arteriography: Part 1
- 7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- 24 Gastrointestinal Bleeding
- 12:15 p.m. — Zurbrugg Memorial Hospital, Riverside  
(Sponsored by Academy of Medicine)
- 25 Surgical Treatment of Portal Hypertension
- 11 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- 25 Nephro-Pathology Conference
- 9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- 28 Viral Pneumonias
- 11 a.m. — Perth Amboy General Hospital  
(Sponsored by Academy of Medicine)
- 28 Lymphangiography
- 7-10 p.m. — Englewood Men's Club  
(Sponsored by Englewood Surgical Association and Academy of Medicine)
- 28 Neurology
- 11 a.m. — Perth Amboy General Hospital, Perth Amboy  
(Sponsored by Academy of Medicine)
- 28 Breast Cancer
- 8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 29 Hematology, Blood Coagulability Factors
- 2-4 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital, AAFP, and Academy of Medicine)
- 29 Carcinoma of the Lung
- 9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- Feb.
- 1 Orthopedic Surgery
- 8 8:30 a.m. — Martland Hospital, Newark
- 15 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 22
- 1 Basic Science for Surgeons
- 8 4-5 p.m. — Martland Hospital, Newark
- 15 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 22
- 3 Practical Dermatology
- 8 p.m. — Community Memorial Hospital, Toms River  
(Sponsored by Academy of Medicine)
- 3 Distinguished Lectures in Surgery
- 10 4-5 p.m. — Martland Hospital, Newark
- 17 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 24
- 3 Cerebrovascular Diseases
- 24 Slow and Latent Infections of Cerebral Nervous System



- 11:30 a.m.-12.30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Hoffman-La Roche, and Bergen Pines Hospital)
- 4 Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)
- 4 1974-75 Lecture Series**  
11 Hunterdon State School, Clinton  
18 (Sponsored by Hunterdon State School and Academy of Medicine)
- 4 Changes in Functional Adaptation — 4-6 p.m.**  
11 Pathology in Aged as Opposed to Pathology of Aging — 4-5 p.m.  
11 Cardiovascular Aspects of Aging — 5-6 p.m.  
18 Hemodynamic Changes Associated with Aging — 4-5 p.m.  
18 Atherosclerosis — 5-6 p.m.  
25 Electrocardiography and Other Diagnostic Procedures in the Aged — 4-5 p.m.  
25 Gastrointestinal Changes in the Aging — 5-6 p.m.  
Martland Hospital, Newark  
(Sponsored by Academy of Medicine)
- 5 Neurology**  
3 p.m. — Fair Oaks Hospital, Summit  
(Sponsored by Academy of Medicine)
- 5 Albert Siegel Symposium — Liver Disease**  
2-5 p.m. — St. Barnabas Medical Center, Livingston  
(Sponsored by New Jersey Gastroenterological Society and Academy of Medicine)
- 5 Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 5 Clinical Endocrinology**  
12 3:30 p.m. — Martland Hospital, Newark Beth  
19 Israel, and VA Hospital, East Orange (varies)  
26 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 5 Common Protozoal and Fungal Infections**  
12 Future of Allergy  
19 Hemostasis  
26 Hypercalcemia and Hyperparathyroidism  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
(Sponsored by Middlesex General Hospital and Academy of Medicine)
- 5 1974-75 Medical Lecture Series**  
12 9-11 a.m. — Riverview Hospital, Red Bank  
19 (Sponsored by Riverview Hospital and Academy of Medicine)  
26 of Medicine)
- 5 Clinical Interpretation of Diagnostic Laboratory Tests**  
12 3:30-5:30 p.m. — Rutgers Medical School,  
19 CMDNJ, Piscataway  
26 (Sponsored by CMDNJ, Rutgers Medical School and Academy of Medicine)
- 5 Distinguished Lectures in Neuroscience**
- 12 10:30-11:30 a.m. — VA Hospital, East Orange**  
19 (Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)
- 5 Post Graduate Course in Cardiology**  
12 10 a.m.-2:30 p.m. — St. Michael's Medical Center,  
19 Newark  
26 (Sponsored by St. Michael's Medical Center and Academy of Medicine)
- 5 Clinical Pathology Conference**  
12 Hepatic Encephalopathy  
19 Vasculitis  
26 Anaerobic Infections  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 6 Clinical Nephrology**  
13 4-5 p.m. — Martland Hospital Unit, Newark  
20 (Sponsored by CMDNJ, New Jersey Medical School and Academy of Medicine)  
27
- 8 Vascular Surgery**  
Newark Beth Israel Medical Center, Newark  
(Sponsored by Academy of Medicine)
- 10 Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)
- 11 Genetic Disorders**  
8 p.m. — White Laboratories, Schering Corporation  
(Sponsored by New Jersey Dermatological Society and Academy of Medicine)
- 12 Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)
- 12 1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General and Riverside Hospitals, and Academy of Medicine)
- 12 Pathogenesis and Management of Gout**  
2-4 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital, AAFP, and Academy of Medicine)
- 12 Southern New Jersey Chest Case Conferences**  
7:30-9:30 p.m. — Burlington County Memorial Hospital, Mount Holly  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 12 Advances in Medicine**  
19 9:30-11 a.m. — Bergen Pines County Hospital, Paramus  
26 (Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 13 Continuing Medical Education Programs**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of Medicine)

- 14 **Antihypertensive Agents**  
2 p.m. — VA Hospital, East Orange  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and of City of Newark)
  - 18 **Medical-Legal Aspects of Medicine and Surgery**  
11:30 a.m. — St. Mary's Hospital, Orange  
(Sponsored by Academy of Medicine)
  - 18 **Laboratory Interpretations**  
12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
  - 19 **Proper Use of Antibiotics**  
1 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
  - 19 **Hypertension**  
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights  
(Sponsored by Academy of Medicine)
  - 19 **Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, VA Hospital of East Orange, and Academy of Medicine)
  - 19 **Chemical Control of Respiration**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
  - 20 **Graduate Teaching Programs 1974-75**  
4:30-6:30 p.m. — Somerset Hospital, Somerville  
(Sponsored by Somerset Hospital and Academy of Medicine)
  - 20 **Chest Case Conferences**  
7:30 p.m. — Mountainside Hospital, Montclair  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
  - 21 **Gastrointestinal Bleeding**  
12 noon — Freehold Area Hospital, Freehold  
(Sponsored by Academy of Medicine)
  - 21 **Chemotherapy of Malignant Disease**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
  - 22 **Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
  - 25 **Neuroscience Unit Conferences**  
11:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
  - 25 **Fundus Fluorescein Angiography and Argon Laser Photo Coagulation**  
7-10 p.m. — Englewood Men's Club  
(Sponsored by Englewood Surgical Association and Academy of Medicine)
  - 26 **Advances in Tuberculosis**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
  - 27 **Coronary Arteriography: Part II**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- Mar.
- 1 **Orthopedic Surgery**
  - 8 8:30 a.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
  - 15
  - 22
  - 29
  - 1 **Basic Science for Surgeons**
  - 8 10 a.m.-12 noon — Martland Hospital, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
  - 15
  - 22
  - 29
  - 3 **Proper Use of Antibiotics**  
8 p.m. — Community Hospital, Toms River  
(Sponsored by Academy of Medicine)
  - 3 **Proper Use of Antibiotics**  
11:30 a.m. — Helene Fuld Hospital, Trenton  
(Sponsored by Academy of Medicine)
  - 3 **Distinguished Lectures in Surgery**
  - 10 4-5 p.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
  - 17
  - 24
  - 31
  - 3 **Neurology-Neurosurgical Conference**
  - 10 **Neuro-Ophthalmology**  
11:30 a.m.-12:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
  - 4 **Nutritional Aspects of Gerontology I — 4-5 p.m.**
  - 4 **Nutritional Aspects in Gerontology II — 5-6 p.m.**
  - 11 **Regressive Changes in Oral Cavity in Aged — 4-5 p.m.**
  - 11 **Effects of Aging on Endocrine System — 5-6 p.m.**
  - 18 **Reproductive Changes in Senility — 4-5 p.m.**
  - 18 **Musculo-skeletal Changes and Rehabilitation in Aged — 5-6 p.m.**
  - 25 **Dermatological Changes in Old Age — 4-5 p.m.**
  - 25 **Developmental Changes in Renal Function — 5-6 p.m.**  
Martland Hospital, Newark  
(Sponsored by Academy of Medicine)
  - 4 **Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)
  - 5 **1974-75 Educational Seminars**
  - 12 9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General and Riverside Hospitals, and Academy of Medicine)
  - 5 **Post Graduate Course in Cardiology**  
10 a.m.-2:30 p.m. — St. Michael's Medical Center, Newark  
(Sponsored by St. Michael's Medical Center and Academy of Medicine)
  - 5 **Prosthetic Valve Replacement**
  - 12 **Perspectives in Medical Education in New Jersey**

- 19 Diabetes Mellitus — after 50 Years of Insulin
- 26 Medical Hazards of Air Pollution  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 5 1974-75 Medical Lecture Series
- 12 9-11 a.m. — Riverview Hospital, Red Bank  
(Sponsored by Riverview Hospital and Academy of Medicine)
- 5 Clinical Endocrinology  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 5 Acupuncture  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 5 Advances in Medicine  
9:30-11 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 5 Monthly Meeting  
8-10 p.m. — St. Joseph's Hospital and Medical Center, Paterson  
(Sponsored by New Jersey Gastroenterological Society)
- 5 Distinguished Lectures in Neuroscience
- 12 10:30-11:30 a.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)
- 5 Clinical Endocrinology  
12 3:30 p.m. — Martland Hospital, Newark Beth  
19 Israel, and VA Hospital, East Orange (varies)  
26 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 5 Heart Block and Syncope
- 12 Renal Failure
- 19 Resuscitation in Shock and Trauma
- 26 Office Urology  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
(Sponsored by Middlesex General Hospital and Academy of Medicine)
- 5 Clinical Interpretation of Diagnostic Laboratory Tests  
12 3:30-5:30 p.m. — Rutgers Medical School, Piscataway  
(Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)
- 26 Care of the Critically Ill Patient-Cardiac Arrests  
6 1 p.m. — Ancora Psychiatric Hospital, Hammonton  
(Sponsored by Academy of Medicine)
- 6 Clinical Nephrology  
13 4-5 p.m. — Martland Hospital Unit, Newark  
20 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 27 Workshop on Applying Systems Approach to Hospital Education Programs for Physicians and Nurses  
Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)
- 8 Anesthesiology Seminar
- 9 Cherry Hill Inn, Cherry Hill  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 10 Neurology and Neurosurgery Conferences  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)
- 11 Dermatologic Manifestations of Endocrine Tumors  
8 p.m. — White Laboratories, Schering Corporation  
(Sponsored by New Jersey Dermatology Society and Academy of Medicine)
- 11 Endotoxic Shock  
11 a.m. — Margaret Hague Maternity Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 11 Emergency Room Medical Care  
10:30 a.m. — North Hudson Hospital, Weehawken  
(Sponsored by Academy of Medicine)
- 12 Multiple Sclerosis, Demyelinating Diseases  
VA Hospital, East Orange  
(Sponsored by Academy of Medicine)
- 12 Monthly Neuroradiology Meeting  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)
- 12 Psychotropic Medication  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital, AAFP, and Academy of Medicine)
- 12 Workshop on Clarification of Values by Health Care Teams  
18 Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)
- 13 Continuing Medical Education Program  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of Medicine)
- 13 Thrombophlebitis and Pulmonary Embolism  
8 p.m. — Mount Holly Center, Mount Holly  
(Sponsored by Burlington County Medical Society and Academy of Medicine)
- 14 Antihypertensive Agents  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 17 Proper Use of Antibiotics  
8 p.m. — Irvington General Hospital, Irvington  
(Sponsored by Academy of Medicine)
- 19 Psychiatry; Family Therapy  
1 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 19 Medical-Surgical Emergencies in Psychiatric Practice  
1:30 p.m. — John E. Runnells Hospital, Berkeley



- Heights  
(Sponsored by Academy of Medicine)
- 19 **The Rights of Childhood**  
8-10 p.m. — 81 Grand Avenue, Englewood  
(New Jersey Medical Women's Association)
- 19 **Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)
- 19 **Cor Pulmonale**  
11:30-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School and Academy of Medicine)
- 20 **1974-75 Lecture Series**  
10:30 a.m. — Hunterdon State School, Clinton  
(Sponsored by Hunterdon State School and Academy of Medicine)
- 20 **Graduate Teaching Programs 1974-75**  
4:30-6:30 p.m. — Somerset Hospital, Somerville  
(Sponsored by Somerset Hospital and Academy of Medicine)
- 20 **Chest Case Conferences**  
7:30 p.m. — Overlook Hospital, Summit  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 21 **Renal Failure**  
12:15 p.m. — Zurbrugg Memorial Hospital, Riverside  
(Sponsored by Academy of Medicine)
- 21 **Fluid and Electrolyte Imbalance**  
12 noon — Freehold Area Hospital, Freehold  
(Sponsored by Academy of Medicine)
- 21 **Proper Use of Antibiotics**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 25 **Mycologic Disease Syndromes**  
11 a.m. — Perth Amboy General Hospital, Perth Amboy  
(Sponsored by Academy of Medicine)
- 25 **Renal Failure**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Warren Hospital and Academy of Medicine)
- 26 **Ventilatory Failure**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 27 **Sialography**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- 29 **Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- Apr.  
1 **Renal Function in the Aged — 4-5 p.m.**  
1 **Changes in Pulmonary Function with Age — 5-6 p.m.**  
8 **Response of Aged to Operative Stress — 4-5 p.m.**  
22 **Neurological Changes During Senility — 4-5 p.m.**  
22 **The Aging Eye — 5-6 p.m.**  
29 **Panel Presentation — Aging, Dying, Death — 4-6 p.m.**  
Martland Hospital, Newark  
(Sponsored by Academy of Medicine)
- 2 **Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 2 **Common Errors in Practice**  
9 **Medical Hypnosis**  
16 **Functional Diseases**  
23 **Interaction of Drugs Used in Cardiac Disease**  
30 **Stroke Rehabilitation**  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
(Sponsored by Middlesex General Hospital and Academy of Medicine)
- 2 **Clinical Endocrinology**  
9 3:30 p.m. — Martland Hospital, Newark Beth Israel, and VA Hospital, East Orange (varies)  
16 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 2 **Clinical Interpretations of Diagnostic Laboratory Tests**  
3:30-5:30 p.m. — Rutgers Medical School, Piscataway  
(Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)
- 2 **Monthly Meeting**  
8-10 p.m. — Newark Beth Israel Medical Center, Newark  
(Sponsored by New Jersey Gastroenterological Society and Academy of Medicine)
- 2 **Coronary Surgery Controversy**  
9 **Nutritional Anemia**  
16 **Clinical Pathology Conference**  
23 **Rheumatoid Arthritis**  
30 **Medical-Surgical-Cardiology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 2 **Proper Use of Blood Gases**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 2 **Proper Use of Blood Gases**  
2 p.m. — Cherry Hill Medical Center, Cherry Hill  
(Sponsored by Academy of Medicine)
- 2 **Distinguished Lectures in Neuroscience**  
9 10:30-11:30 a.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

- 3 **Proper Use of Antibiotics**  
1:00 p.m. — Ancora Psychiatric Hospital, Hammonton  
(Sponsored by Academy of Medicine)
- 3 **Clinical Nephrology**  
10 4-5 p.m. — Martland Hospital Unit, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical  
24 School, and Academy of Medicine)
- 5 **Orthopedic Surgery**  
12 8:30 a.m. — Martland Hospital, Newark  
19 (Sponsored by CMDNJ, New Jersey Medical  
26 School, and Academy of Medicine)
- 5 **Basic Science for Surgeons**  
12 10 a.m.-12 noon — Martland Hospital, Newark  
19 (Sponsored by CMDNJ, New Jersey Medical  
26 School, and Academy of Medicine)
- 7 **Distinguished Lectures in Surgery**  
14 4-5 p.m. — Martland Hospital, Newark  
21 (Sponsored by CMDNJ, New Jersey Medical  
28 School, and Academy of Medicine)
- 8 **Workshop on Applying Systems Approach to Hospital  
Education Programs for Physicians and Nurses**  
Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)
- 8 **Tumor Clinical Conference**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital,  
American Cancer Society, and Academy of Medicine)
- 8 **Office Surgery**  
8 p.m. — White Laboratories, Schering Corporation  
(Sponsored by New Jersey Dermatology Society and  
Academy of Medicine)
- 8 **Gastrointestinal Bleeding**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 8 **Proper Use of Antibiotics**  
10:30 a.m. — North Hudson Hospital, Weehawken  
(Sponsored by Academy of Medicine)
- 9 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital,  
Morristown  
(Sponsored by Radiological Society of New Jersey and  
the Academy of Medicine)
- 9 **Alcoholic Illness and Drug Abuse in Hudson County**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital and Academy of  
Medicine)
- 9 **Southern New Jersey Chest Case Conferences**  
7:30-9:30 p.m. — Cooper Hospital, Camden  
(Sponsored by New Jersey Thoracic Society and  
Academy of Medicine)
- 10 **Continuing Education Programs**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of  
Medicine)
- 11 **Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey  
RMP, and City of Newark)
- 14 **Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy  
of Medicine)
- 15 **Newer Concepts in Hepatitis Management**  
12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
- 16 **Infertility**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey  
City  
(Sponsored by Academy of Medicine)
- 16 **Hepatitis Management**  
1:30 p.m. — John E. Runnells Hospital, Berkeley  
Heights  
(Sponsored by Academy of Medicine)
- 16 **Thanatology**  
1 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 16 **Tuberculosis Before and After Chemotherapy**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 18 **Care of the Critically Ill Patient — Cardiac Arrests**  
12 noon — Freehold Area Hospital, Freehold  
(Sponsored by Academy of Medicine)
- 21 **Arteriography**  
11:30 a.m. — Helene Fuld Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 22 **Hepatitis Management**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 22 **Regional Chest Case Conferences**  
7:30 p.m. — Christ Hospital, Jersey City  
(Sponsored by New Jersey Thoracic Society and  
Academy of Medicine)
- 23 **Oral Manifestations of Systemic Disease**  
9 a.m.-4 p.m. — VA Hospital, East Orange  
(Sponsored by Academy of Medicine)
- 23 **1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and River-  
side Hospitals, and Academy of Medicine)
- 24 **Workshop on Clarification of Values by Health Care  
Teams**  
Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)
- 24 **Pancreatic Scanning**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and  
Academy of Medicine)
- 25 **Medical Care in the Emergency Room**  
12:15 p.m. — Zurbrugg Memorial Hospital, Riverside  
(Sponsored by Academy of Medicine)

- 25 Hepatitis Management**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 26 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- 30 Advances in Use of Antibiotics**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- May**
- 1 Clinical Nephrology**  
8 4-5 p.m. — Martland Hospital Unit, Newark  
15 (Sponsored by CMDNJ, New Jersey Medical  
22 School, and Academy of Medicine)  
29
- 3 Orthopedic Surgery**  
10 8:30 a.m. — Martland Hospital, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical  
24 School, and Academy of Medicine)
- 3 Basic Science for Surgeons**  
10 10 a.m.-12 noon — Martland Hospital, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical  
24 School, and Academy of Medicine)  
31
- 5 Distinguished Lectures in Surgery**  
12 4-5 p.m. — Martland Hospital, Newark  
19 (Sponsored by CMDNJ, New Jersey Medical  
School, and Academy of Medicine)
- 5 Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital,  
American Cancer Society, and Academy of Medicine)
- 7 Mini-dose Heparin in Surgical Patients**  
14 New Diagnostic Techniques in Gastroenterology  
21 Aggressive Treatment of Stroke  
28 Gerontology  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and  
Academy of Medicine)
- 7 Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 7 Fluid and Electrolyte Imbalance**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 7 Distinguished Lectures in Neuroscience**  
14 10:30-11:30 a.m. — VA Hospital, East Orange  
21 (Sponsored by CMDNJ, New Jersey Medical  
28 School, East Orange VA Hospital, and Academy  
of Medicine)
- 7 Clinical Interpretation of Diagnostic Laboratory**  
14 Tests  
21 3:30-5:30 p.m. — Rutgers Medical School, Pis-  
cataway  
28 (Sponsored by CMDNJ, Rutgers Medical School, and  
Academy of Medicine)
- 7 Clinical Endocrinology**  
14 3:30 p.m. — Martland Hospital, Newark Beth  
21 Israel Medical Center, and VA Hospital, East  
28 Orange (varies)  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 7 Minor Surgery in Office Practice**  
14 Learning Disabilities  
21 Nutrition of the Aged  
28 Emotional Aspects of Common Medical Problems  
9-11 a.m. — Middlesex General Hospital, New  
Brunswick  
(Sponsored by Middlesex General Hospital)
- 12 Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy  
of Medicine)
- 13 Hepatitis Management**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 13 Fluid and Electrolyte Imbalance**  
12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
- 13 Proper Use of Laparoscopy**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey  
City  
(Sponsored by Academy of Medicine)
- 13 Proper Use of Blood Gases**  
10:30 a.m. — North Hudson Hospital, Weehawken  
(Sponsored by Academy of Medicine)
- 14 Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital,  
Morristown  
(Sponsored by Radiological Society of New Jersey and  
the Academy of Medicine)
- 14 Respiratory Failure**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 14 1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and River-  
side Hospitals, and Academy of Medicine)
- 16 Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey  
RMP, and City of Newark)
- 19 Proper Use of Blood Gases**  
8 p.m. — Irvington General Hospital, Irvington  
(Sponsored by Academy of Medicine)
- 21 Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School,  
East Orange VA Hospital, and Academy of Medicine)
- 22 Regional Chest Case Conferences**  
7:30 p.m. — The Medical Center at Princeton  
(Sponsored by New Jersey Thoracic Society, and  
Academy of Medicine)



- 23 Continuing Education Programs**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of Medicine)
- 23 Cardiology**  
8:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen County Heart Association and Lederle Laboratories)
- 23 Proper Use of Blood Gases**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 27 Psychiatry**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 28 Annual Awards Dinner**  
6 p.m. — Chanticleer, Millburn  
(Sponsored by Academy of Medicine)
- 28 Pulmonary Circulation**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 31 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- May 31-June 3**  
**Annual Meeting, MSNJ**  
Garden State Convention Center, Cherry Hill
- June**
- 3 Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)
- 4 Clinical Endocrinology**  
3:30 p.m. — Martland Hospital, Newark Beth Israel Medical Center, and VA Hospital, East Orange (varies)  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 4 1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospital and Academy of Medicine)
- 4 Gastrointestinal Cancer**
- 11 House Staff Symposium**
- 18 Clinical Pathology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 5 Thanatology**  
1 p.m. — Ancora Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 7 Orthopedic Surgery**  
8:30 a.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 7 Basic Science for Surgeons**
- 14 10 a.m.-12 noon — Martland Hospital, Newark**
- 21 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)**
- 28**
- 9 Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)
- 10 Difficult Diabetic Patient**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 11 Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)
- 13 Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 18 Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)
- 24 Hepatitis, Acute and Chronic**  
11 a.m. — Perth Amboy General Hospital, Perth Amboy  
(Sponsored by Academy of Medicine)
- 24 Thyroid Diseases**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 25 Air Pollution**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 27 Endotoxic Shock**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 28 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)

## 1975 Annual Meeting

May 31-June 3

Cherry Hill

# **THE MEDICAL SOCIETY OF NEW JERSEY**

## **Professional Liability Insurance Program**

### **Society Endorsed Coverages —**

- Professional Liability for  
Individuals  
Partnerships and Professional Corporations  
Employed Nurses, Technicians or Aides
- Professional Premises
- Excess (Umbrella) Liability — Limits up to \$5 Million

### **Management of Loss Control Program —**

- Claims Peer Review
- Prompt Advice Regarding Potential or Actual Claims
- Defense by Highly Skilled and Experienced Counsel
- Investigation by Specialists in Malpractice

## **JOSEPH A. BRITTON AGENCY**

**15 South Munn Ave., East Orange, N.J. 07018**

**(201) • 673-3060**

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# OBITUARIES

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## Dr. Ralph I. Alford

Ralph I. Alford, M.D., a member of our Sussex County component, died suddenly of a ruptured aorta on November 10, 1974. Born in 1904 and a 1930 graduate of the College of Physicians and Surgeons of Columbia University, Dr. Alford was an allergist and dermatologist who practiced first in Montclair and, for the past fifteen years, in Newton. He had been associated with Community, Mountainside, and St. Vincent's Hospitals in Montclair, and with the Essex County Sanatorium in Verona and the Memorial Hospital in Newton. For many years, he was an instructor in clinical medicine at the New York Post Graduate Medical School. He was a founder and past-president of the New Jersey Allergy Society and a member of the American College of Physicians, the American Academy of Allergy, and the American Academy of Dermatology. Dr. Alford was active in civic affairs and had been chairman of the Stillwater Township Planning Board. He was a life-long conservationist and his evergreen farm was widely known for its demonstration of conservation practices. During World War II, he served in the Philippines and in Japan as a major in the medical department of the AUS.

## Dr. Theodore Bender

One of Passaic County's senior practitioners, Theodore Bender, M.D., died on October 20, 1974, at the grand age of 87. A native of New Jersey, Dr. Bender earned his doctor of medicine degree from the College of Physicians and Surgeons of Columbia University, class of 1910. He took graduate work in surgery and gastroenterology at Columbia and New York Medical Colleges and practiced those specialties in the Paterson area until retirement to Saddle River. He had been associated with the surgical staff at both Paterson General and Barnert Memorial Hospitals. Dr. Bender was a Fellow of the American College of Surgeons and of the International College of Surgeons, having served two terms as vice-regent of the latter organization.

## Dr. Carl R. Buono

At the untimely age of 47, Carl R. Buono, M.D., died on October 16, 1974. Dr. Buono was graduated from the Medical College of the University of Bologna (Italy) in 1958 and returned to his native New Jersey for internship at the Martland Hospital in Newark. He maintained offices in Morristown for general practice and obstetrics and was associated with Morristown Memorial and All Souls Hospitals there. He was a member of the American Academy of Family Practice.

## Dr. Samuel T. Day

On November 12, 1974, Samuel T. Day, M.D., one of Cumberland County's senior members, died at his home. Born in 1891, Dr. Day was graduated from the Medical College of the University of Virginia in 1917. A family practitioner of the old school, he served the Port Norris area until retirement in 1970. Formerly, he had been a member of the attending staff at the Millville Hospital.

## Dr. Herbert H. Hauck

The sudden death, on October 28, 1974, cut short the promising career of Herbert H. Hauck, M.D., a member of our Essex County Medical Society. Born in 1920, and a graduate of Jefferson Medical College, class of 1945, Dr. Hauck pursued a career in psychiatry, becoming board certified in that specialty. For several years, he was a staff psychiatrist at the Veterans Administration Clinic in Newark. Dr. Hauck was a member of the American Psychiatric Association and of the American Association for Advancement of Science.

## Dr. Harry F. Hoffman

At the grand age of 89, Harry F. Hoffman, M.D., of Sea Girt, died on October 28, 1974, at the Jersey Shore Medical Center. A native of New Jersey, he was a 1910 graduate of the Hahnemann Medical College. His interest was directed to psychiatry and he became associated first with the State Hospital at Norwich, Connecticut, and then with the Allentown (Pennsylvania) State Hospital, progressing to superintendent of that facility. In 1950, he



resigned the position and entered the private practice of psychiatry in Metedeconk (New Jersey) where he remained until retirement in 1965. He was board certified in his chosen field and had been a lecturer and associate professor in the department of psychiatry of his alma mater until designated emeritus professor in 1949. Dr. Hoffman was a member of the American Psychiatric Association.

#### Dr. Roscoe Kandle

New Jersey's former Commissioner of Health, Roscoe P. Kandle, M.D., died of leukemia on November 25, 1974, at Sloan-Kettering Memorial Hospital in New York. Born in Camden in 1909, Dr. Kandle earned his M.D. degree from Jefferson Medical College in 1934 and received a Master's degree in public health from Johns Hopkins University in 1938. After internship at Cooper Hospital, Camden, he established a practice in New Mexico and became district health officer there. Prior to coming to New Jersey in 1946 as Director of the Division of Preventable Diseases, he had been a district state health officer in Louisiana. He was a field director of the American Public Health Association for six years and deputy health commissioner of New York City for five years, before appointment, in 1959, as the New Jersey State Commissioner of Health, a post he held for ten years, when he accepted appointment as medical director of New Jersey Blue Cross; he resigned that position in 1974 and became public health coordinator for Gloucester County.

Dr. Kandle was a diplomate of the American Board of Preventive Medicine and a member of the American Public Health Association. He was a trustee of the American Cancer Society, New Jersey Division, president-elect of the New Jersey Blood Bank Association, and a member of the professional advisory council of the National Society for Crippled Children and Adults. The author of more than 100 published articles, he was recipient of the McCormack Award of the Association of State and Territorial Health Officers, the Edward J. Ill Award of the Academy of Medicine of New Jersey, and the Osborne Award of the New Jersey Health Officers Association.

#### Dr. John J. Piampiano

One of Sussex County's senior practitioners, John J. Piampiano, M.D., died on October 22, 1974. Born in 1910, Dr. Piampiano earned his M.D. degree in 1938 from Loyola University Medical School. He was a general practitioner with special interest in obstetrics and had been chief of staff at Alexander Linn Hospital in Sussex. Dr. Piampiano is a past-president of the Sussex County Medical Society and would have served a second term in that office in 1975-1976, having been named president-elect this past Spring.

#### Dr. Charles E. Pike

Charles E. Pike, M.D., a member of our Camden County component, died in Dayton, Ohio, on November 11, 1974, victim of a stroke. Born in 1890, Dr. Pike was graduated from the University of Pennsylvania College of Medicine in 1912 and practiced general medicine and obstetrics in Oaklyn until retirement twelve years ago. He had been on the attending staff at Our Lady of Lourdes Hospital in Camden.

#### Dr. Leo M. Strauss

One of Essex County's senior practitioners, Leo M. Strauss, M.D., died on October 22, 1974. A native of Solingen, Germany, and a graduate of Heidelberg University, where he earned his M.D. degree in 1918, Dr. Strauss emigrated to the United States in the mid-1930's and established a practice in internal medicine in East Orange. He had been associated with East Orange General Hospital and the Beth Israel Hospital in Newark. He was a member of the New Jersey Gastroenterological Society.

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The American College of Obstetrics and Gynecology technical informational bulletins are available for distribution to non-Fellow physicians upon request to the College, 1 East Wacker Drive, Chicago 60610. There is no charge.

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# BOOK REVIEWS

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**Emergency Care: Assessment and Intervention.** Edited by Carmen Warner Spraul, R.N. and Patrick J. Mullanney, M.D. Saint Louis, Mosby, 1974. Illustrations 122. Pp. 406. (\$12.50)

One of the great needs in the field of emergency medical care is a book which leavens theoretical knowledge with the distillation of one physician's personal experiences gained in the treatment of patients who are in need of emergent medical care. Regrettably, this is not such a book.

Here is a distinguished list of contributing authors who each have written separate chapters of the book. Even the least of these contains much information that is of some value from a theoretical standpoint. But, nowhere can one find the practical points that transform theory into contact with the patient. Additionally, there are several areas where an author in one chapter provides some contradiction to a second author in another chapter, indicating a failure on the part of the editor to exercise overall control on the material. For example, in the well-written chapter on shock, there is not a single mention of the use of bicarbonate solutions for this condition. In the subsequent chapter on life support in the emergency department, however, much emphasis is laid on the importance of its use both alone and in association with the administration of the various alpha and beta adrenergic drugs.

The organizational format of the book is well done. The indexing is satisfactory, but the illustrations are mediocre.

On the one-to-ten scale, this book rates a five.  
William A. Dwyer, Jr., M.D.

**Clinical Gynecologic Endocrinology and Infertility.** L. Speroff; R. H. Glass; N. G. Kase. Baltimore, Williams and Wilkins, 1974. Pp. 266. Illustrated. (\$16.50)

This is a rather unique book. The text is printed on the right two-thirds of the page whereas the left third remains open for titles in bold face. The content is subdivided into three parts: Physiology of Female Reproduction, Clinical Endocrinology, and Infertility. The first part consists of the physiology and biochemistry of steroid hormones, i.e., their synthesis, metabolism, and excretion. The second part, entitled "Clinical Endocrinology" contains chapters on Anovulation and Hirsutism, Amenorrhea, Dysfunctional Uterine Bleeding, Abnormal Lactation, and Oral Contraception. The last-mentioned chapter is timely and informative. The side effects of oral contraceptives are discussed as to thromboembolic disease, carbohydrate metabolism, lipid metabolism, and hypertension, and all chapters are clearly written and much to the point.

The book closes with five chapters on "Infertility." It describes the investigation of the infertile couple, tubal surgery, endometriosis and infertility, male infertility, and induction of ovulation. In the chapter on endometriosis, this

reviewer was interested in the title "Prevention of Endometriosis." The authors feel that the treatment of cervical stenosis by dilatation of the cervix should be avoided since it may force parts of the endometrium into the peritoneal cavity. This would explain endometriosis by Sampson's theory. However, it does not explain cases of congenital endometriosis (as for instance in the umbilicus) which are more likely to be due to an abnormal differentiation of the coelomic epithelium. The section closes with a chapter on the use and abuse of clomiphene in the induction of ovulation.

In conclusion, this is a most informative and readable book. The print is clear, the paper is good, and the illustrations are excellent. It can be highly recommended to all physicians who deal with the abnormalities of female reproduction.

Werner Steinberg, M.D.

**The Behavioral Treatment of Psychotic Illness, Advances in Theory and Technique.** William J. DiScipia, Ph.D. Behavioral Publications, New York, 1974. Pp. 240 (Price not stated)

This is not a text book but a collection of experimental reports concerning behavioral management of people on a psychiatric ward. The authors seem to lack a concept of the meaning of psychotic illness. The techniques applied have no specific relationship to any particular psychiatric disease nor any relevance even to heuristic concepts of etiology. By way of example, in a paper entitled, "Contingency Management in an Open Ward," people could earn lunch tickets by emitting desirable work behavior such as, "General: F1 Mop utility room. F2 Sweep utility room. F3 Put linen room in order. F4 Clean water fountains. F5 Scour toilet bowl in women's bathrooms." In this type of experiment the authors exploited whatever was left of normal responsivity in people ravaged by psychotic illness of one sort or another. This is not to pass judgment on what is good or bad for the ward management or the people on the ward. It is just to point out that the text has little or nothing to do with mental illnesses per se. Were the offices of a large corporation to be deprived of janitorial services, by precisely similar techniques, it would quite likely be possible to elicit work-emitting behavior from top management by making the daily meal ticket contingent upon having the chief executives mop the toilets and clean the toilet bowls in the rest rooms, especially if lunch tickets were re-enforced by the contingency that the monthly salary would be forthcoming in proportion to how accurately each executive stuck to his prescribed diet for lunch. The techniques described in the book obviously work, and they may have their place in the management of a psychiatric ward, but they just have no specific relationship to psychotic illness. Therefore, the title of the book is a misnomer.

Ira S. Ross, M.D.

**Cell Wall Deficient Forms.** Lida H. Mattman. Cleveland, CRC Press, 1974. Pp. 411. Illustrated. (\$44.95)

This volume is based on the thesis that there are cell wall deficient organisms among the known bacteria and fungi and that these organisms assume forms entirely different from the easily recognized organisms, but with appropriate manipulations, may, in some instances, revert to the commonly recognizable bacteria or fungus. The popular antibiotic penicillin, in appropriate concentrations, is one of the means by which these cell wall deficient forms may be induced. "Dual antibiotic administration is often required to control both the classical and atypical forms of the pathogen



involved." This statement is a direct opposite to the N.I.H. studies which resulted in a large pharmaceutical company being prevented from supplying practitioners with combinations of antibiotic drugs.

The bacteriological literature has been reviewed and listed at the end of each chapter. The book contains many suggestions for future research. It will have great interest for students of microbiology and bacteriology.

The final chapter is a tribute to the women who have contributed to this field of study. Appropriate photos of these ladies are presented. This will get applause from the NOW organizations.

Should this field of bacteriology achieve a practical basis, it will mark a break-through in rapid bacteriological diagnosis of disease; however, in the *American Journal of Clinical Pathology*, November 1974, p. 601, Phair, Watanakunakorn, Linnemann Jr., and Carleton say "Routine cultures for wall-defective microbial variants are unwarranted."

Thomas K. Rathmell, M.D.

**General Ophthalmology**, 7th Edition. Daniel Vaughan and Taylor Asbury. Las Altas, California, Lange, 1974. Pp. 334. Illustrated. (\$9.50)

The foreword of this concise, clear textbook states that it is "the most popular ophthalmology book among medical students throughout the world." It is soon apparent why this may indeed be so. In addition to a book that is self-covered, not bulky, eminently readable, well arranged, and reasonably priced (in comparison to other books), it is a very complete and up-to-date text. The section on external diseases is accompanied by excellent photographs and

drawings, as are the sections on the retina, neurophthalmology, and strabismus. Each chapter is followed by an excellent bibliography that includes papers published as recently as 1974. This is truly a well-written and complete book that admirably serves its purpose.

S. Jerome Greenfield, M.D.

**Handbook of Microbiology, Vol. III, Microbial Products.** A. I. Laskin and H. A. Lechevalier, Editors. Cleveland, Ohio, CRC Press, 1974. Pp. 1143. Illustrated. (\$37.50)

This is the third volume of a four-volume series entitled as follows: Vol. I, Organismic Microbiology; Vol. II, Microbial Composition; Vol. III, as above; and Vol. IV, Microbial Metabolism, Genetics and Immunology. I had the pleasant opportunity to review Vol. II, and I find this one equally interesting and comprehensive.

The editors, Drs. Laskin and Lechevalier are to be complimented on finding 52 such knowledgeable contributors on difficult subjects. There are eleven sections and each of these contains at least four subsections and one as many as seventeen subsections. The book, in effect, lists by chemical compounds, beginning with simple aliphatic substances and going through to the most complex enzyme systems, the bacterial and viral organisms which make these compounds. Structural formulas are included and the references are excellent.

This is a well conceived book and recommended for all those active in any field of microbiology. This review presented me with an interesting aspect of many new areas in organic chemistry.

Hugh F. Luddecke, M.D.

## Book Reviewers

*The Journal* acknowledges the contribution of the following whose reviews of books sent to *The Journal* were published during 1974 (Volume 71).

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**ATRICS**—Group or partnership. Board eligible, ersity of Maryland (1972), Now PL-3, Childrens pital of Pittsburgh. Available—July 1975. John Niziol, 5831 Walnut Street, Pittsburgh, Pennsylvania 15232, e (412) 362-1347.

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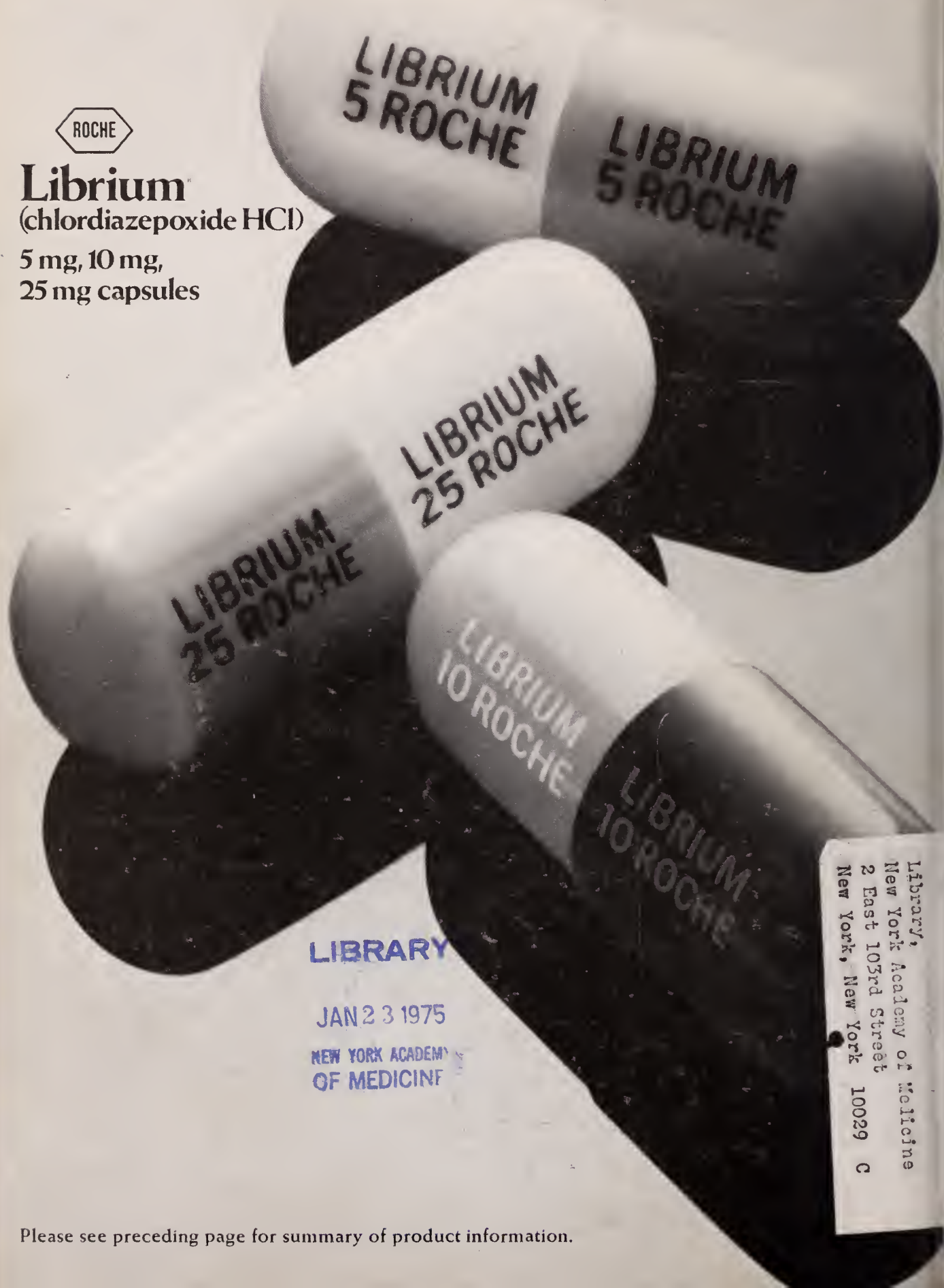
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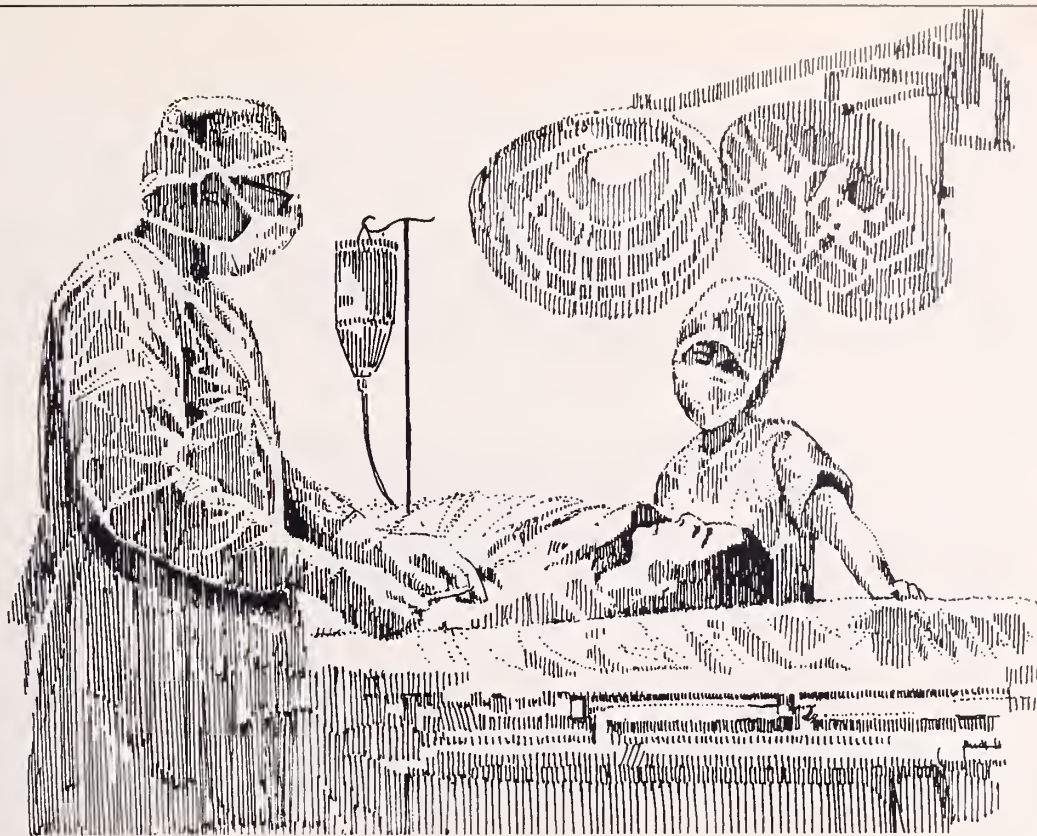
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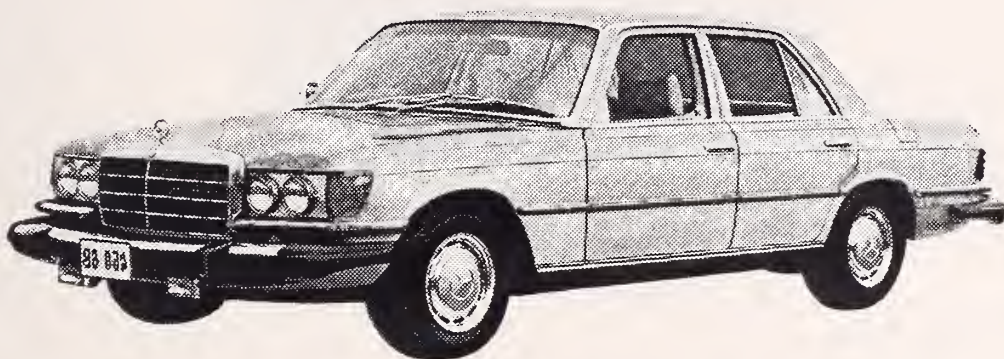
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**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keenly observe addiction-prone individuals under careful



# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



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in psychoneurotic  
anxiety states  
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depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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# EDITORIALS

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## Re-examination — For What Purpose?

We physicians are now faced with a new problem — recertification by examination as advocated by several state boards of medical examiners, as well as by some of the specialty societies. Is this a valid way to assess a man's ability to practice good medicine or is it merely a test of his "knowledge" or his ability to "take an examination?"

We are told that "the consumer" is demanding that physicians be re-examined at fixed intervals to make sure that we know what we are doing and so improve medical care. I have not heard that clarion call anywhere outside of our own ranks. Certainly our record of "keeping up" is no worse than that of the engineer, the architect, or the lawyer. Bridges fall, buildings collapse, lawyers lose cases, judges are reversed, and even the Supreme Court reverses itself, yet there is no outcry for re-examination, even though lives are endangered in each of these instances. So, does the consumer really demand re-examination, or is there a group in our own profession that is pushing for this to justify its existence?

The purpose of an examination is to test knowledge, and the syllogism follows that knowledge is related to competence. This is true, of course, to a certain extent, since, if you have not studied medicine, you certainly would not be knowledgeable on a medical examination. However, even this is not entirely valid, since the type of examination, the bias of those who formed the questions, as well as the examinees' reaction to the examination may give a fallacious measurement of the individual's knowledge and no information about his competence.

In an editorial by Robert J. Levine in *Clinical Research* 21:903, 1973, he points out that many of their best house staff did not do well on national boards. We have all had similar experiences with our own house staffs. This would imply that testing for knowledge and testing for

competence are not one and the same. Therefore, it is not proper that we engage in the sophistry of basing relicensure or recertification on an examination that tests for knowledge and not for competence, because the "public demands it." I believe that we have become so afraid and insecure that we are creating a crisis atmosphere that doesn't in truth exist, and if it does exist, perhaps we should spend time combating these falsehoods of widespread incompetence with the facts that show that we are a profession that is the most competent and concerned of any. We are putting the cart before the horse because we are panicked by any criticism. As John P. Curran pointed out, "It is the common fate of the indolent to see their rights become a prey to the active. The condition upon which God hath given liberty to man is eternal vigilance; which condition, if he breaks, servitude is at once the consequence of his crime and the punishment of his guilt."

So then, what is the alternative?

Assessment by performance, it seems to me, is the only meaningful way to judge a physician's competence. This stand has already been taken by the American Society of Internal Medicine, and I urge all of you to fight for this approach instead of "examination." Unfortunately, there are as yet no *acceptable* techniques for measuring "assessment by performance" perfected. But we do have audit, tissue, record, and utilization committees in each of our accredited hospitals and these can be the first steps in measuring competence.

Furthermore, the use of well-conceived continuing medical education based on the needs of the particular physician or hospital staff can do much toward achieving our goal of constantly improving patient care. Self-assessment helps by stimulating the individual to close the knowledge gap that this type of examination can reveal.

Let us not mistake the pop of a firecracker for an atomic explosion and so jump into our bomb shelters and cringe, while a small group of well-meaning comrades-in-arms take over the practice of medicine and mold it into the "graven image" of examination and uniformity at which they worship instead of into the living,



breathing, dedicated profession it now is. Protest now! Let your voices be heard by refusal to sit for such debasing and misdirected examinations. Abraham Lincoln said, "The probability that we may fail in the struggle ought not to deter us from the support of a cause we believe to be just." Take heed before it is too late!

Arthur Bernstein, M.D.

## Symbol of Authority

Two decades ago, the famous radio, television, and film comedian, Ernie Kovacs, starred in a television drama entitled "Symbol of Authority." Kovacs, an innovative, comic actor who had his professional beginning on radio in Trenton, New Jersey, played the role of an introverted, reclusive "book worm"-type person. In his job as a copy proof-reader in a medical publishing company, he became familiar with scientific terminology and the language of medicine.

One day, while enroute to work, he found a stethoscope lying in front of a large city hospital. He retrieved the lost instrument and started to enter the hospital to return it, when a startling thing happened. As he reached the door with stethoscope in hand, the doorman flung open the hospital door with a flourish and a bright "good morning, doctor." When the same thing happened in the corridor and in the hospital elevator, it produced an interesting feeling of self-respect and power in this man, who had previously avoided contact with people.

Needless to say, he kept the stethoscope and began to visit the hospital daily at lunch time. On one eventful day, he was stopped by an elderly female patient who wanted to ask her doctor some questions but was repeatedly frustrated because he was "always too busy." Kovacs stopped, sat and listened intently and sympathetically, but never offered medical advice. He "made rounds" daily and developed a delightful relationship with the old lady.

As one might guess, the imposter was caught, charged with practicing medicine without a license, and hauled before a judge. In a moving self-defense, Kovacs explained his actions by

stating that he never intended to hurt anyone and that he never did anything but listen to the patient and offer sympathy and understanding to a lonely matriarch. He knew that doctors are so busy they sometimes don't have time to sit a few minutes to listen to and talk with their patients.

The questions raised by this poignant playlet have some timeless significance. Are we physicians too busy to listen, to show compassion, and to offer the solace and comfort that patients expect and deserve? Are we fully aware of the power that resides in the stethoscope as a symbol? I'm afraid we are all guilty of giving at least an occasional patient "short-shrift."

This may be more notable when the art of medicine is being crowded a bit by the science of medicine — dependence on the mechanical diagnostic and therapeutic techniques, which add immeasurably to our acumen but steal our time. It may take two hours to perform and interpret selective arteriography, but only a few seconds to tell a patient he has an aneurysm. How much time should be elicited to soften the blow and prepare the patient for super-surgery?

The greater availability of special x-ray techniques, scanning, phonocardiography, ultrasonography, fiberoptic endoscopy, and a host of other invasive and non-invasive methods has almost relegated the stethoscope to the status of the asafetida enema. To many of us, that instrument *has* become just a "symbol of authority," used to gain instant respect and recognition, especially when we enter an unfamiliar hospital or other health facility.

Scientists, when speaking of the present limit to their knowledge in a particular field of study, refer to "the state of the art," meaning the degree or stage of their know-how. It would be better to use the term "state of the science," because the art of medicine had its beginnings and its glory many years ago. The "state of the art of medicine" has been on the decline in modern times, unfortunately, as the "state of the science of medicine" has been ascendant — even to the moon itself.

It appears that both the art of medicine — and the stethoscope — merit a little more of our attention — and so do our patients. A.K.

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# ORIGINAL ARTICLES

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*Foreign medical graduates from schools in the developing countries of Asia, Africa, South and Central America have been valued ambivalently. Current reassessment reveals strengths previously overlooked, and indicates that as the quality of American post-graduate education available to these residents improves, their professional competence is augmented. The training of foreign medical graduates in a teaching program is described.*

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## Teaching the Foreign Resident<sup>†</sup>

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**Edith T. Shapiro, M.D. and  
Myron S. Denholtz, M.D./Englewood\***

Foreign medical graduates from schools in the developing countries of Asia, Africa, South and Central America have been valued ambivalently.<sup>1</sup> Current reassessment reveals strengths previously overlooked, and indicates that as the quality of American post-graduate education available to these residents improves, their professional competence is augmented.

The Department of Labor has recognized the shortage of physicians in the United States and facilitates the immigration of foreign graduates.<sup>2</sup> Equal numbers of American and foreign doctors began clinical practice in 1971.<sup>2</sup> A 1971 AMA survey of medical education indicates that house-staff positions were at a record high with 17 percent unfilled.<sup>3</sup> Affiliated hospitals obtained 88 percent of all house-staff applicants, 71 percent of whom were Americans and Canadians. Non-affiliated hospitals accepted 62 percent of the foreign graduates. Over 80 percent of foreign physicians came from the developing countries.

As available psychiatric residencies exceeded the number of American applicants, affiliated and non-affiliated institutions accepted candidates from the developing countries, thus making comparisons possible over the full range of the American psychiatric residency training system.<sup>3</sup> Since in the past, positions available to the foreign residents were mostly in hospitals which lacked active teaching programs, inadequate training and subsequent poor performance became a self-fulfilling prophecy for them.<sup>4,5</sup>

Greater acceptance of ethnic differences, di-

verse modes of behavior, and new political and social styles have encouraged further the re-evaluation of the residents from the developing countries. Interest in reaching out and improving communication is replacing traditional American insistence that others, if they wish to communicate, learn to speak our way. Contemporary American post-graduate trainees have disappointed many teachers and clinicians, and the reassessment of foreign graduates was prompted partially by recognition that, unlike some young Americans, the foreign trainees valued scholarship and professionalism.<sup>6</sup>

### Selection of Candidates

Both authors have been directors of psychiatric residency training programs which were composed of various combinations of Americans and foreigners. Reports of inadequate previous training, personality difficulties, confusion and misunderstanding over culture and values, and language difficulties made residency directors reluctant to consider candidates from the developing countries.<sup>7-14</sup> For example:

1. An unexpected opening late in the academic year limited the number of applicants to an established training program. The Residency Training Committee chose a mediocre American candidate, because he was an American, rather than a newly arrived foreigner who spoke good English and had excellent grades and recommendations.

2. The goals of a new residency training program

<sup>†</sup> An abstract of this work appeared in the *Journal of Medical Education* 49:78-79 (January 1974) under the title of "The Promise of the Foreign Resident."

\*Dr. Shapiro is Clinical Associate Professor of Psychiatry at New Jersey Medical School and Chief Liaison Service, Psychiatry, Martland Hospital, Newark. Dr. Denholtz is Associate Professor of Psychiatry at the New Jersey Medical School, and is the Director of the Psychiatric Residency Training Program there.

included an American house-staff. Foreign residents were accepted because of shortage of American applicants. The foreign residents were considered much less desirable and a future staff was envisioned of mostly native American.

## Teaching and Supervision

Over thirty foreign residents seeking to transfer to the three programs with which the authors have been associated described minimal teaching at the county or state hospitals where they served. One applicant described her recent training.

She was responsible for the care of sixty patients to whom she dispensed two or three medications, apparently at random. Her case supervisor, a general practitioner, saw her occasionally to discuss mental status. Didactic training consisted of bi-weekly meetings with a psychoanalyst who was interesting but whom she did not understand too well. The resident did not see the connection, if any, between his teaching and her clinical responsibilities. She tried to read the few books in the library but she did not know where to start. She was too tired to look for public transportation to professional meetings even if she knew where to find them. Her free time was spent talking about home with other foreigners. The physician was eager to start over again as a first year resident in a teaching institution.

Many similar reports suggested that some of the deficiencies of foreign medical graduates might have been due to poor post-graduate training in the United States, and that they might respond positively to good training.

## A Psychiatric Residency Training Program

The faculty in the Psychiatric Residency Training Program at the New Jersey Medical School was unambivalent about education, but was ambivalent about foreign medical graduates who were accepted mostly because Americans were not available. The training program was based on an eclectic model, implemented through lectures and seminars on clinical psychiatry, psychopharmacology, psychodynamics and so on. One-to-one supervision of all clinical activities was planned at least once a week. All treatment modalities were taught. Emphasis was placed on crisis intervention and brief therapy as acute patient needs mandated rapidly effective approaches.<sup>7</sup> The location of the training program, a hospital in an inner city area, yielded an unexpected bonus. Some trainees were frightened and alienated, but

the majority assumed a therapeutic role with great ease because the patients resembled the population at home and aroused emphatic feelings.

Many authors assert that American, Canadian, and British training is irrelevant for physicians who return home to populations and medical systems which have little in common with Western training.<sup>5,7</sup> An international consensus is sought to develop eclectic basic training with subsequent culturally specialized training.<sup>10,13</sup> No special effort was made at the New Jersey Medical School to emphasize cross-cultural issues. The eclecticism of the program provided a prerequisite base for further specialization for candidates who planned to return home.

The initial psychiatric residency group at the school consisted of four Americans, one Egyptian, five Indians, one Cuban, six Koreans, one Iranian, and one Albanian. Currently there are 19 residents, 15 from the developing countries. All candidates accepted for training had at least an average medical school record, and all had at least average recommendations. The foreign candidates in the program, had better class standings than did the Americans. About one third of the foreigners had difficulty with spoken English at the time they were interviewed. All could read and understand English well. The candidates spoke better English by the time the residency began, a few months later. Residents were urged to continue English language studies, and each resident was required to research, write, and present a paper in English. Many of the foreign residents wrote about home, religion, and culture and used the paper as a bridge between past and present professional and social concerns. For example:

A resident attributed the prevalence of passivity in her country to Taoist teaching that best life is achieved through recognition and acceptance of the "natural way" rather than through action to effect change. She compared newly learned psychodynamic mechanisms to adaptive tactics characteristic of her people.

## Group Therapy

Group therapy was offered on a voluntary



basis to all residents and frequently used by the foreigners to discuss acculturation. Fortuitously, the group was led by a successfully acculturated physician from the Philippines. Some problems also reviewed in the literature came up in group discussions. Pain at rejection by patients for racial and cultural reason was frequently coupled with ambivalence about American values and resistance to acclimatization.<sup>5</sup> Some residents had retreated to ethnic enclaves widely different from life styles at home.<sup>5</sup> The use of language difficulties to avoid a difficult case, described by Brody, was admitted by some foreign residents, who in talking to American colleagues, saw that Americans also suffered from a form of culture shocks as they moved from medicine to psychiatry.<sup>8,13</sup>

## Evaluation and Discussion

Char listed personality characteristics which appeared to make the foreign trainees difficult to contact. He described many as less aggressive, less spontaneous, and less open than the Americans who appeared warm, friendly, and independent. Where Americans complained readily, the foreign residents were said to respond to frustration with excessive positiveness, rigidity, and reserve.<sup>1</sup> At the New Jersey Medical School, mature acceptance of responsibility characterized the residents from the developing countries. The cooperativeness and lack of complaints from the foreign residents might be explained by the traits listed above as well as by respect for authority and current concern over jeopardizing their jobs. But the residents were not unassertive. To augment their function and training, they frequently initiated critical activities and cooperated in effecting change. For example:

The residents questioned the supervision in a clinical area and were responsible for the appropriate changes. They initiated a newsletter for which they aggressively solicited faculty and administration support.

Teachers and supervisors revealed at faculty conferences that they had had limited expectations of the foreign residents and were initially ambivalent and patronizing. The residents' grateful response to even half-hearted teaching rapidly converted many

supervisors. Similar language from different supervisory reports, reflects the change.

"Has done very well. Surprised me."

"Has really done well. I'm impressed."

"Devoid of rigidity."

"Original"

"Able to be independent and original."

"Sensitive and perceptive."

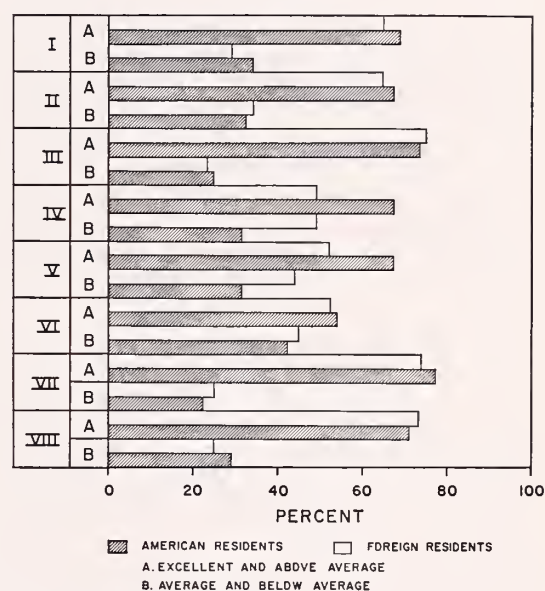
"One of the most sensitive residents I've ever supervised."

"Not intimidated by the business of psychotherapy."

"Comments and questions reveal comprehension."

The supervisors' evaluations of all trainees are summarized in the table.

TABLE I



Code for Roman numerals:

- I —Excellent and above average
- II —Interpersonal relations: ability to relate effectively to others of higher, equal, subordinate status in a variety of situations
- III —Emotional stability: ability to cope with difficulties in a mature manner
- IV —Research ability
- V —Scholarship: comprehension and knowledge of formal psychiatry
- VI —Sensitivity and ability to carry out psychotherapy
- VII —Motivation and effort in his work
- VIII—Evidence of growth and progress in resident's work

After one year of training, all the residents were asked to take the self-assessment examination of the American Psychiatric Association. The results for the foreigners and Americans, in the same program, were similar but the number of participants was too small to be of predictive value.

The presence of foreign medical graduates in psychiatric post-graduate training programs during the last decade served as a catalyst for a critical examination of contemporary trends in psychiatry.<sup>8,14</sup> The residents at the New Jersey Medical School exemplify this. Their surprise that the psychiatrist was frequently seen as an expert in living rather than a physician treating psychopathology prompted many educators to seek a more precise definition of the psychiatrist's role. The foreign residents' skepticism at the easy surface friendliness and familiarity of Americans, served to unmask the superficiality of such facades in patient contacts, staff sensitivity groups, and team approaches to mental health problems. The academic sophistication of some foreign residents helped to recognize that emphasis on feelings sometimes masked immaturity and illiteracy in American residents.

The foreign residents' focus on enlightened service contrasted with American residents who focused on self-realization. Maturity and responsibility characterized the foreign resident whose American counterparts often seemed naive and adolescent in contrast. Foreign residents' acceptance of authority served as a reminder that authority is legitimate when it is based on superior knowledge and experience.<sup>6</sup>

## Conclusion

Psychiatric training of physicians from the developing countries presents problems and challenges but can also be a major asset to an American residency training program.

The residents meet bias from teachers, colleagues and patients who may be suspicious of people who speak, dress, and possibly think

differently. The differentness is perceived as inferiority.

Teachers report a low level of expectation which initially results in lesser involvement and a lesser teaching investment. While language and cultural impediments are undeniable, they can be largely overcome by expert teaching. Many of the residents from the developing countries are less well prepared than Americans in basic psychiatry. On the other hand, they surpass Americans in scholarship, in the seriousness of their commitment and dedication, in their respect for teaching and in their acceptance of responsibility. This constellation makes them eminently teachable. The foreign residents have usually been denied access to affiliated institutions which educate and graduate the majority of candidates at a high level of competence. Non-affiliated institutions may lack educational facilities and skills and may fail to train. Most residents from developing countries may have failed largely because of a lack of teaching. It is acknowledged in our training program that the residents from the developing countries have unique problems. The maturity and basic high self-esteem of these residents enable them to accept criticism and to be receptive of help when it is offered.

The foreign residents, who foster a re-examination of some psychiatric shibboleths, are an asset to an educational program. Their experience with large, unsophisticated, uneducated patient populations enable them to show their American colleagues that the latter often tailor patients to theories rather than seek out patients' needs.

Some of the lessons learned from training residents from the developing countries might be extrapolated to the training of American natives, whose early educational experiences were outside of the prevalent consensus or below standard. The major area of differentness and hence, potential difficulty in applying the analogy may lie in the self-assessment and self-esteem of the two groups. The residents from the developing countries represent the elite whose self-esteem is high, while

persons from American ghettos, may suffer from low self-esteem outside the ghetto. A program aimed at improving the self-image and self-esteem of these persons might be incorporated into training. At the same time, it is crucial that programs for the residents from the developing countries, as well as programs for poorly prepared Americans, maintain high educational and professional standards, comparable to those maintained for optimally prepared candidates. It is not necessary to sacrifice quality in the interest of access to the professions for less adequately prepared persons. What is essential is that teaching be done in an imaginative and positive manner.

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211 Davison Place

## Drug Prescriptions Defended

Federal researchers reported that national surveys challenge the view that the prescribing habits of American physicians may contribute to the rising incidence of drug abuse.

They\* said: "Our data indicate that most private practitioners, if anything, err in the conservative direction" in prescribing psychotherapeutic drugs. They see little likelihood that doctors contribute to drug abuse by creating physical dependence among their patients.

Less than half of those surveyed who showed "high levels of psychic distress" had used any psychotherapeutic medications obtained on prescription during the past year. In the study, 43 per cent of the males and 54 per cent of the females who had used prescription psy-

chotherapeutic drugs during the past year had a high level of psychic distress, indicating treatment had been necessary.

Other general findings include no evidence for claims that Americans are chronic users of psychotherapeutic drugs; Americans are conservative toward using tranquilizers. Most agreed that doctors prescribe such drugs more than they should, and held it is better to use willpower to solve problems, which tranquilizers may cover up. Despite national differences, the rate of prescriptions filled in the U.S. is similar to rates found in several European countries. That is slightly more than five prescriptions per person per year.

\*M. Balter, Ph.D., and J. Levine, M.D., NIMH.



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**IMPORTANT INFORMATION:** This is a Schedule V substance by Federal law; diphenoxylate HCl is chemically related to meperidine. In case of overdosage or individual hypersensitivity, reactions similar to those after meperidine or morphine overdosage may occur; treatment is similar to that for meperidine or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of an initial response to Nalline® (nalorphine HCl) or may be evidenced as late as 30 hours after ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.

**Indications:** Lomotil is effective as adjunctive therapy in the management of diarrhea.

**Contraindications:** In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

**Warnings:** Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate a hypertensive crisis.

**Usage in pregnancy:** Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in breast milk of nursing mothers.

**Precautions:** Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage, but does not exceed recommended dosages. Administer with caution to patients receiving addicting drugs known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine added to discourage deliberate overdosage; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

**Adverse reactions:** Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

**Dosage and administration:** Lomotil is contraindicated in children less than 2 years old. Use Lomotil liquid for children 2 to 12 years old: ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) t.i.d. adults, two tablets (5 mg.) t.i.d. to four tablets (5 mg.) q.i.d. or two regular teaspoons (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

**Overdosage:** Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, pinpoint reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

**Dosage forms:** Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. Liquid, 1 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of 1/2 ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

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Lomotil usually stops diarrhea promptly. This rapid action halts the emergency aspect of diarrhea

and is comforting and reassuring to the patient. Electrolyte and fluid losses can be corrected while the specific cause of the diarrhea is being determined. If an infective agent is the cause, appropriate antibiotic therapy should be given along with Lomotil.

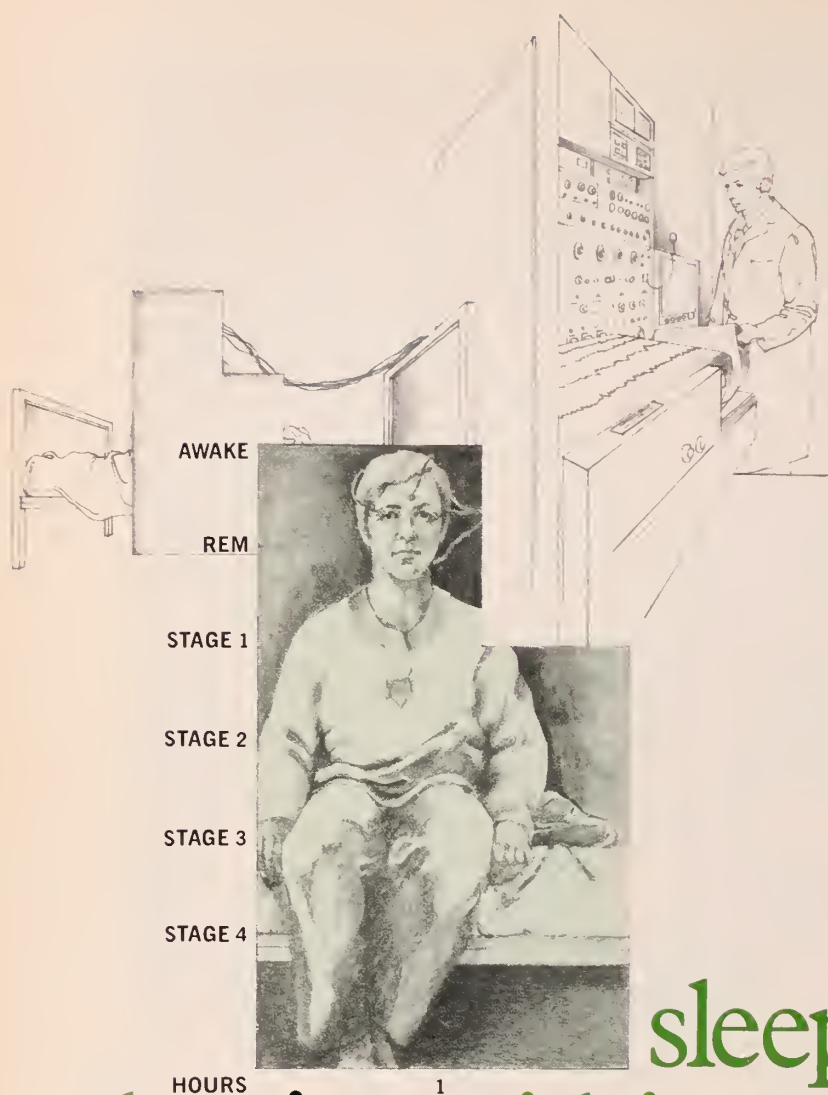
Lomotil has few side effects, and those that do occur are generally mild.

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TABLETS/LIQUID

Each tablet and each 5 ml. of liquid contain:  
diphenoxylate hydrochloride . . . . . 2.5 mg.  
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Usually stops diarrhea promptly.





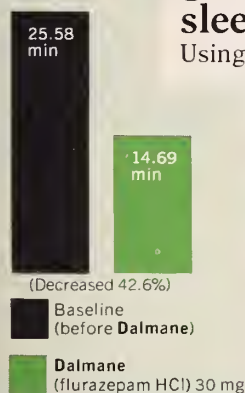
sleep  
begins within  
17 minutes, on average ...  
an initial benefit of

**Dalmane<sup>®</sup>**  
(flurazepam HCl) proved by a  
**22-night clinical study of insomnia patients  
in the sleep research laboratory and at home<sup>1</sup>**

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.<sup>1</sup>



Average Time Required  
to Fall Asleep (4 Studies,  
16 Subjects<sup>2-5</sup>)



## confirmed by clinical studies in four geographically separated sleep research laboratories<sup>2-5</sup>

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage<sup>2-5</sup>

### Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. Combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly and debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

**Dosage:** Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.

**REFERENCES:** 1. Kales A, et al: *Arch Gen Psychiatry* 23:226-232, Sep 1970

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Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

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One 30-mg capsule h.s. — usual adult dosage  
(15 mg may suffice in some patients).

One 15-mg capsule h.s. — initial dosage for  
elderly or debilitated patients.

- induces sleep within 17 minutes, on average
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Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

**Indications:** Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

**Contraindications:** Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia ( $>5.4$  mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities.

Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

**Supplied:** Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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Two prime reasons patients drop out of hypertensive therapy are (1) the patient failed to understand directions, and (2) the regimen was overly complicated. Dosage is simple with 'Dyazide', easily understood, once or twice daily, depending on response. There's no need to complicate the regimen with potassium supplements or unwieldy potassium-rich diets.

## TO KEEP BLOOD PRESSURE DOWN AND KEEP POTASSIUM LEVELS UP



*Rational bronchodilator therapy requires understanding of the neurochemistry of the constricted airway. This presentation summarizes contemporary knowledge of direct bronchodilator drugs, prophylactic agents, corticosteroids, and other ancillary medications available here and abroad for the management of the breathless patient with obstructive lung disease.*

## Modern Bronchodilator Therapy\*

**Burton M. Cohen, M.D./Elizabeth**

Like coronary artery disease, the chronic obstructive lung disorders have become a modern epidemic. The recent analysis of trends in the 15 leading causes of death in the United States carried out by the Department of Health, Education and Welfare reported in *the New York Times* of May 6, 1971, indicates that, while the death rates from heart disease, stroke, and seven other leading killers declined from 1950 to 1970, the sharpest change was the acute increase in the category of chronic obstructive lung disease which more than doubled during the period 1954 to 1960 alone. Other sources estimate that family practitioners now devote an equal amount of time to respiratory and cardiovascular care. These disorders have a malignant prognosis, with the ratio of observed to predicted deaths 4.5/1.0, five years after the onset of significant airway obstruction.

Bronchial asthma bulks large in the impact of the chronic obstructive lung diseases. Problems of definition and survey cloud its true incidence, but it is frequent, with perhaps as many as 10,000,000 Americans affected. In a recent year, asthmatics paid more than 10,000,000 visits to their doctors, and, despite better surveillance and the availability of effective treatment, asthma is still the cause of more than 4,000 deaths yearly in this country.

Neurochemical and immunologic discoveries have sharpened our understanding of the allergic process, allowed classification of four major types of the allergic reaction and subdivided asthma into intrinsic and extrinsic forms. Theoretically, it should be simple to differentiate the acute, substantially reversi-

ble, airways obstruction of asthma from the chronic, only partially reversible, airways obstruction of chronic bronchitis and emphysema, but these distinctions are blurred clinically. The asthmatic airways are sensitive to many agents, the tempo and severity of the illness change, intrinsic asthma may complicate the initial extrinsic disorder, and chronic bronchitis, with or without emphysema, often develops in later life. All three of the obstructive disorders are marked by bronchoconstriction, mucous overproduction and changes in the respiratory-mucous membranes. Rather than sink in a semantic/diagnostic quagmire, the physician might best focus on the final common physiologic pathway of all these forms and types—constriction of the airways (bronchospasm). Because bronchospasm is the salient feature, bronchodilator drugs are the major therapeutic weapon, able to relax the airways, regardless of the underlying disease.

### Basic Considerations

Bronchoactive drugs work through the chemical mediators of the 3', 5'-cyclic adenosine monophosphate cycle ("cyclic-AMP," "CAMP"), acting through receptors in the airway smooth muscle. Airway calibre reflects a balance between the bronchoconstrictive tendencies of the histamine and acetylcholine receptors and the bronchorelaxant effect of  $\beta$ -adrenergic receptor stimulation; because the normal airways have tone, they also can respond to bronchodilating drugs. The asthmatic airways over-respond, a hyperresponsiveness detectable

\*Abridgement of the Sixth Health Care Lecture for Members of the Financial Community, Lehman Brothers, Inc., June 20, 1974. New York. Dr. Cohen is Associate Professor of Clinical Medicine, New Jersey College of Medicine, CMDNJ, and attending physician at Elizabeth General Hospital, Elizabeth, New Jersey.



between attacks, and even when there have been no symptoms for many years. The contemporary "Theory of Beta Adrenergic Blockade," as enunciated by Middleton,<sup>17</sup> states that "the excessive irritability of the airways in asthma is due to the diminished responsiveness of the catecholamine-sensitive beta adrenergic receptors of the bronchial tree." Modern bronchodilator therapy has developed with this hypothesis. The first major step was the introduction, in 1941, of isoproterenol which, stimulating only the  $\beta$ -receptors, was less likely to induce the side effects of the earlier epinephrine and ephedrine. Metaproterenol (or-ciprenaline), released two decades after isoproterenol, was also a pure  $\beta$ -stimulant, but could be given orally. While both newer drugs caused a desired bronchodilatation there were accompanying unwelcome cardiovascular effects. It seemed possible to dissociate the useful from the unwanted activity when Lands<sup>14</sup> and his co-workers suggested that the  $\beta$ -receptors in the heart and the bronchi were not identical, and demonstrated that so-called  $\beta_1$  stimulation induced myocardial excitation, relaxation of the small intestine and lipolysis of fat tissues, while  $\beta_2$  stimulation led primarily to bronchodilatation, vasodilatation and glycogenolysis. In this view, an "ideal bronchodilator" would possess chiefly  $\beta_2$  activity, a hypothesis supported by the pharmacology of the new drugs released during the past decade.

### Bronchodilator Therapy

Modern bronchodilator therapy, for which asthma is the prototypical disease, derives from these considerations. Treatment is designed to open the narrowed airways, promote bronchial catharsis and reduce the abnormalities of the respiratory mucous membranes. Bronchodilators are given by injection, taken orally or rectally, or inhaled as mists from a variety of sources. While a single drug may suffice for some asthmatics, particularly mildly ill patients with a stable degree of disability, the majority of asthmatics require several oral and aerosol preparations given regularly together. The latent reversibility of much of their airway obstruction can be favorably influenced when the drugs are incorporated in

a program utilizing physical therapy and mechanical aids to breathing.

Potential responsiveness is determined by pulmonary function testing before and a few minutes after inhalation of a standard aerosol test dose of isoproterenol or metaproterenol from mechanical hand nebulizers which deliver a uniform amount of drug with each valve depression. An improvement of at least 15 to 20 per cent above baseline following the mist suggests a potentially susceptible degree of bronchospasm. When such responsiveness is not evident on acute testing, it may be revealed by an intensive trial of chronic bronchodilator treatment, even in the face of severe initial functional handicaps or blood gas changes.

The guiding principles of treatment include:

- (1) awareness of the multiple avenues of therapy available;
- (2) inauguration of treatment immediately after diagnosis, rather than reserving it for emergencies, life-threatening complications or the deterioration of advanced airway disease;
- (3) tailoring of requisite programs to the needs of individual patients;
- (4) realization that no single medication, measure, or respiratory aid is sufficient and that many modalities must be used together to control the deficits of a multifactorial disease;
- (5) insistence that the regimen for each patient is for daily use indefinitely; and
- (6) alteration of personal programs where serial lung function tests show a suboptimal or fixed response, or where new medications offer the promise of increased response, prolonged duration of action or fewer side effects.

Direct bronchodilator drugs are of four major pharmacologic types.

(a) *Direct Chemical Antagonists*—The *anti-histamines* are representative of drugs acting by direct chemical antagonism to bronchoconstrictors. These compounds have minor worth, but have not been studied sufficiently in acceptable human trials. As yet, they can not be concentrated selectively in the respiratory tract and they have little effect on other chemical bronchoconstrictors.

(b) *Beta Adrenergic Stimulants*—The  $\beta$ -adrenergic stimulants or “agonists” are the most effective of the bronchodilators, and can be given by aerosol, oral and parenteral routes. Inhalation is often safer and more effective than when they are given orally or by injection: the response to inhalants is commonly greater than that from maximally potent prior doses given by the other two routes. For these reasons, and to take advantage of differences in time-response curves, we feel that regular aerosol doses should be given daily to heighten the effects of oral medications.

After half a century, *ephedrine*, alone or combined with a mild sedative, expectorant or xanthine, is still the principal drug for oral use; *pseudoephedrine* may have less cardiovascular and central nervous system activity than the older drug. Recently, *metaproterenol* has received approval for tablet prescription; as a pure  $\beta$ -stimulant, it may cause fewer unwanted effects. Until recently, *epinephrine*, given by subcutaneous injection in a short-acting form, or intramuscularly in a longer-acting preparation in oil, was the only reliable injectable sympathomimetic drug in bronchospastic crises. Recently, a new  $\beta$ -receptor stimulant, *terbutaline* (Bricanyl®), has been released in this country in an injectable form. It has a rapid onset, long action, minimal cardiovascular activity and a potency superior to that of a standard subcutaneous dose of epinephrine.

Aerosol therapy seeks to give a small amount of drug where it is most needed, theoretically with more rapid action, minimal systemic effects and fewer side reactions than when the medication is given by other routes. It is unclear whether these inhalants do primarily pass directly into the lungs or whether absorption across the gastrointestinal lining is responsible for their pharmacodynamics. Given principally from hand-held nebulizers, the mist can also be delivered from positive pressure breathing devices, ultrasonic generators, large volume nebulizers and other apparatus. Aerosol effectiveness varies widely. Particle size must be sufficiently small so that deposition is principally in the finer lung passages. If

there is careful patient instruction, the hand-held manually-activated pocket devices are as helpful as the positive pressure devices. Although better results follow administration of the aerosol by the doctor or trained therapist than with patient self-administration, neither method is as effective as when the same drug dose is given with a pocket-sized nebulizer (Duohaler®) triggered by the patient's own inspiration. Our original suggestion that this device might produce effective bronchodilatation while cutting down on total drug used was recently confirmed by a British investigator<sup>13</sup> who found that the breath-activated apparatus gives a comparable degree of relief to that following use of the hand-activated nebulizer, but does so with a smaller amount of medicament.

Aerosols of *isoproterenol* are the most frequently used inhalants in this country. Because this compound tends to congest bronchial mucosal blood vessels, phenylephrine, an  $\alpha$ -stimulant, has been combined with isoproterenol; it increases the bronchodilatation and slightly prolongs the duration of action. *Isoetharine* is a newer bronchodilator aerosol drug in this country, although available elsewhere in intravenous and slow-release tablet form. Its bronchodilatation is equivalent to that of isoproterenol and, in some ways better than metaproterenol; it has a more selective  $\beta_2$  effect than either of the other two drugs. Isoetharine is available here in combination with phenylephrine and thenyldiamine in a nebulizer (Bronkometer®) and in solution for oxygen and IPPB/I aerosolization (Bronkosol®). *Metaproterenol sulfate* (Alupent®, Metaprel®) aerosols which are also available for prescription in the United States, have a longer duration of action than isoproterenol and fewer cardiovascular effects. *Terbutaline* (Bricanyl®) and *Fenoterol* (Berotec®), like metaproterenol, are resorcinol derivatives; their aerosol and tablet forms cannot be used in this country, although injectable terbutaline has been approved. Both drugs may have more broad  $\beta_2$ , and less  $\beta_1$ , stimulating activity than metaproterenol. *Hydroxyphenylmetaproterenol* aerosols have been studied recently in Canada and have a greater and more pro-



longed bronchodilating activity than the related metaproterenol.

*Albuterol (salbutamol)* is a saligenin derivative used abroad for some time (Ventolin®) as an aerosol, in large volume solution, and in liquid, tablet and sustained-release tablet form. Unlike all the other drugs cited, this compound does not cause significant cardiovascular changes at an effective bronchodilating dose; in some patients, there is a cardiac slowing which is an additional therapeutic dividend. *Trimetoquinol* (Inolin®) is a tetrahydroisoquinoline derivative marketed in Japan and Switzerland; it may be slightly less effective than albuterol and longer acting than isoproterenol. *Carbuterol* (SKF 40383) is another  $\beta$ -adrenergic stimulant with greater selectivity for bronchial smooth muscle than for the cardiovascular system. In our studies, oral doses of 2, 3 and 4 mgm produced airway effects equal to those from 25 mgm of ephedrine, but lasting longer and without as much cardiac stimulation. Carbuterol aerosols were superior to isoproterenol and induced no clear-cut changes in the clinical cardiovascular indices of our subjects.

*Rimiterol* is a member of a new series of sympathomimetic amines, the aryl-2-piperidyl carbinols; is an effective, short-acting bronchodilator when given intravenously or as an aerosol, with little or no cardiac activity. *Soterenol* (MJ 1992), one of a series of methane sulfonamidophenethanolamines which appeared to possess an interesting interplay of  $\beta$  and  $\alpha$  receptor stimulation in the laboratory, was able to overcome many of the pulmonary effects of "locked lung" in an animal model. In a small group of our patients treated with the aerosol, soterenol was an effective bronchodilator with few cardiovascular or other significant side reactions.

(c) *Drugs Interfering with Cholinergic Stimulation*—*Atropine* is typical of direct bronchodilators decreasing cholinergic stimulation, and was a frequent ingredient of older asthma nostrums. Given alone or combined with other bronchodilators for inhalation, atropine increases the effects of the  $\beta$ -adrenergic stimu-

lants and prolongs their effectiveness. It has not been widely used because of the possibility that associated drying of the mucous membranes might cause inspissation of secretions in the tracheobronchial tree. *SCH 1000*, the atropine acid ester under study here and abroad in aerosol form, may be as good a bronchodilator as metaproterenol and other sympathomimetics with a wider therapeutic margin and tolerance than the latter.

(d) *Phosphodiesterase Inhibitors*—Drugs in this fourth class of direct bronchodilators increase the intracellular level of CAMP by inhibiting the enzymes that cause its breakdown. The *methylxanthines*, principally theophylline, act synergistically with the  $\beta$ -adrenergic stimulants and diminish the antigen/antibody-induced release of bronchoconstrictors from sensitized lungs better than when either drug type is given alone. The xanthines are given by parenteral, rectal, and oral routes; high doses, with or without ephedrine, may be strikingly effective in controlling asthmatic symptoms. A newer oral preparation, *choline theophyllinate* (Choledyl®), is said to be absorbed better than theophylline. There is also evidence that *disodium cromoglycate*, primarily a prophylactic agent, may also act through CAMP-dependent mechanisms as a phosphodiesterase inhibitor and may be a more potent agent in this regard than theophylline.

### Prophylactic Agents

Despite this laboratory observation, *disodium cromoglycate* is not a direct clinical bronchodilator, but one of a new class of prophylactic agents against asthma. It inhibits histamine release and the release of other chemical mediators from the mast cells and stabilizes those cells. It can abolish exercise-induced asthma if given prior to exertion. Incapable of ending an existing asthmatic paroxysm, it should be given with the patient's usual bronchodilators during its initial weeks or months of use, and must be taken regularly to prevent future attacks, even if all other active drugs can be ultimately withdrawn. Disodium cromoglycate is administered by inhalation of a powder from capsules used in



a Spinhaler™ device activated by the patient's own breathing and requiring no gaseous propellant. In this country, the capsules contain only disodium cromoglycate (Intal®, Aarane®), while in Great Britain one form contains the drug combined with isoproterenol (Intal Compound®). In very small children, incapable of using the Spinhaler, investigators have dissolved the powder from the capsules in distilled water with, or without a bronchodilating drug and given it via the "Maximyst"™ aerosol apparatus. A new British investigational drug, AH 7725 has prophylactic properties resembling those of disodium cromoglycate, but has the additional advantage of being effective in tablet form. As an oral preparation it would appear useful for the very young patient and for older subjects unable to utilize the inhalation route.

### Steroid Aerosols

Although the steroids are quite successful agents in asthma and for some patients with chronic bronchitis and emphysema, their mechanism of action is poorly understood. Beside their anti-inflammatory and psychic effects, they may dilate bronchi directly by facilitating the  $\beta$ -adrenergic stimulation of many endogenous agents. There have been many attempts to develop steroid aerosols which would have therapeutic value without the adverse systemic effects of parenteral and oral doses. Two new British steroidal aerosols, one containing *beclomethasone dipropionate* (Becotide®) and the other *betamethasone propionate* (Bextasol®), do appear to have significant local airways activity judged by extensive clinical experience. Their regular inhalation is accompanied by fewer systemic effects than mark the use of oral corticosteroids, and the inhalant doses may often be substituted completely for, or lead to, a marked decrease in oral rations. In the United States there has been a similar experience with investigational trial of a *triamcinolone acetonide* (Aristocort®) aerosol; in patients with systemic effects from steroid tablet doses these effects disappeared with aerosol use which permitted tapering of the oral drug. Hoarseness, the only side effect, occurred in

a few patients; it was unrelated to the dose of the inhalant and lasted a few days.

### Other Agents

The *prostaglandins* are an exciting new group of compounds with diverse medical applications and conflicting airways effects. One of these,  $\text{PGF}_{2\alpha}$ , approved for medical induction of abortions, may be a potent bronchoconstrictor in asthmatics. Another analogue,  $\text{PGE}_1$ , a powerful stimulant of the CAMP cycle, has been suggested as the parent compound for future bronchodilating drugs. *Heparin*, primarily an anticlotting agent, has a direct bronchodilating effect when given as an inhalant, although the observed changes are inferior to those from isoproterenol in a controlled study. *Ascorbic acid* in 500 mgm doses may inhibit various exogenous bronchoconstrictors in healthy individuals and influence airway tone. *Glucagon*, a hormone produced by the  $\alpha$  cells of the pancreas, has also been found to have epinephrine-like properties and to be a potent direct stimulator of the CAMP system; when given in intravenous solution in preliminary human trials some subjects achieved a substantial bronchodilatation different from that following isoproterenol.

### Opportunity for Therapy

There is, then, an extensive therapeutic armamentarium of bronchodilators available to the physician treating bronchial asthma, chronic bronchitis and diffuse obstructive pulmonary emphysema. Despite this, the dimensions of therapy actually given obstructive lung patients in this country is generally disappointing. More than 80 per cent of patients classified as "disabled" under the meaning of the Old Age and Survivors' portions of the Social Security regulations and seen by us and others had received either no therapy or only a single type of medication. Coordinated, rigorous, and sustained programs, involving bronchodilating drugs and other approaches to the control of the basic physiologic defects, were notable by their absence. Despite this, most of the patients seen responded with a significant improvement in their basic lung tests following exposure to a standard isoproterenol mist, in-

dicating substantial potential reversibility of their handicap. Obviously, it is necessary for the physician to realize that early treatment is available and necessary to prevent or postpone later disability, improve effort tolerance and decrease mortality. This is a therapeutic opportunity of great potential magnitude in a dynamic and exciting field.

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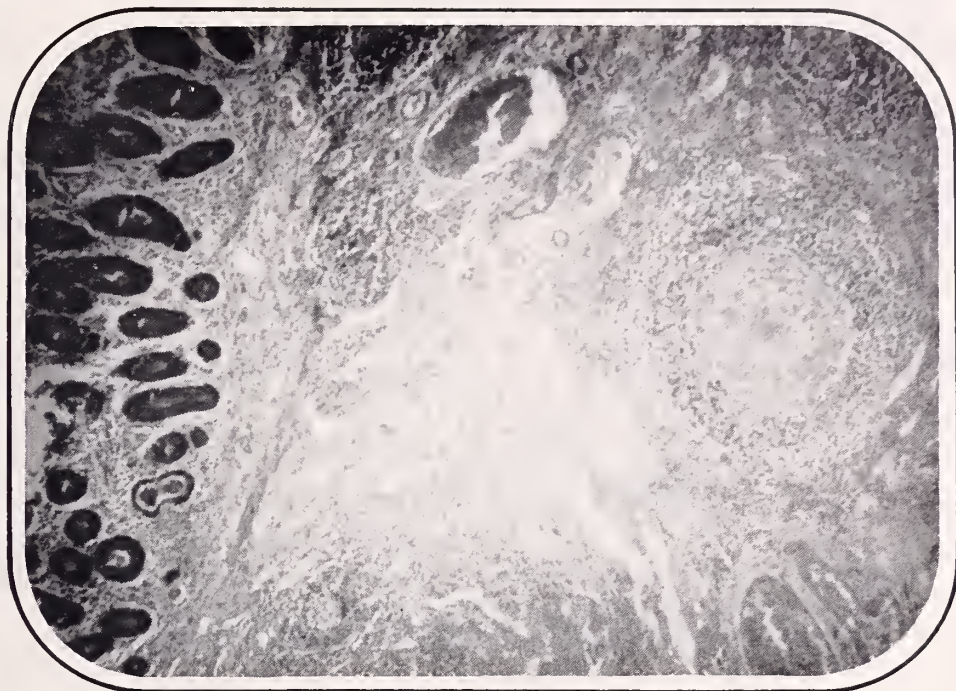
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*From the total group of patients with recurring convulsive seizures, one may separate a relatively small number with attacks which cannot be controlled by conservative therapeutic measures. They deserve a critical diagnostic review since some of them may be helped by appropriate surgical procedures. These therapeutic measures are herein enumerated and their application in selected cases briefly discussed.*

## Convulsive Disorders: The Role of Surgery\*

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### Abbott J. Krieger, M.D./East Orange

Recurrent convulsive seizures manifested by a variety of patterns continue to plague the human race. The numbers of those so afflicted are unknown, but a substantial group is totally disabled—approximately one in a thousand. Investigation for modification and/or control of seizures continues. Most of this effort falls in the category of medicinal therapies, however, the spells occurring in a small group of patients remain intractable to all single or combination anti-convulsive medication. It is with this group that the present communication is primarily concerned.

### Clinical Manifestations

The sequence of events during a convulsive seizure, as reported by the patient and/or his family, is usually adequate to give the examiner a clue to the area in the brain harboring the epileptogenic focus. Separate seizure patterns which have been described by many authors are studied in an attempt to determine the factor or factors that may activate the epileptogenous focus: alteration in blood circulation, changes in cellular metabolism in the focus, electrical cellular adjustments, and so on. An adequate understanding of all of this still escapes us. The electroencephalogram (EEG) served as an aid in diagnosis in a small number of those afflicted with seizures. In others, EEG findings have been regarded as confirmation of the site of the epileptogenous focus. In still others, repeated EEG's have been helpful in determining the effectiveness of an anticonvulsive medication being used on a trial run. In the vast majority, however, the tracings only disclose findings consistent with a convulsive disorder, a state already recognized by the patient, his family, and close

friends. It is a consideration of the age of the patient, the chronology of events that preceded the recurring seizure, accurate assessment of the convulsive pattern, the symptomatology that may exist between spells and the abnormal physical findings, or the absence thereof, that lead the examiner to a logical diagnostic conclusion.

Medication will bring the seizures under acceptable control in the majority of instances. There persists, however, a small group of patients who continue to have recurrent fits regardless of all conservative measures. Often, a continuation of recurrent seizures creates abnormal psychological states in the patient and his family that eventually become wholly unacceptable to all. It becomes necessary, under these circumstances, to review critically the patient's problem with the thought that surgical therapy may be helpful.

### Surgical Excision of Focus

The rationale for surgical excision of an area of the cerebral cortex, which harbors the firing point for epileptic seizures, is based on the concept that an abnormality of neuronal activity resides in the area and that the removal of most or all of it may eliminate or favorably modify the seizures. Removal of part of an epileptogenic area is usually ineffective but, in some instances, excision of a substantial part of the involved zone may eliminate or reduce the frequency of seizures. The following observations have been verified: (a) the abnormal activity in a small

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\* From the Division of Neurosurgery, CMDNJ, New Jersey Medical School, Newark, and the Section of Neurosurgery, Veterans Administration Hospital, East Orange. Presented at a post-graduate program, "Current Concepts in the Treatment of Epilepsy," May 11, 1974, at the hospital.



area of the brain may interfere with the function of the entire brain, (b) removal of this area may improve or eliminate this dysfunction, and (c) the cicatrix resulting from surgical excision rarely becomes epileptogenic if scrupulous care is taken to preserve the pial surface of the intact brain. Having established the location and extent of the epileptogenic focus, the surgeon must consider the technique of its removal. In the event that the focus is located at the margin of a large scar, it may neither be desirable nor advisable to extirpate the entire lesion, since radical removal may add to the incapacity of the patient. It has now been adequately demonstrated that scar is inert and even intense electrical stimulation of it, with the brain exposed, will not produce convulsive movements. Therefore, only the identified epileptogenic focus need be removed. The completeness of the excision should be checked by stimulation and recording from the margins of the intact cortex. If the focus has not been completely removed, there is usually well-developed EEG spiking in the cortex left intact. An epileptogenic zone may develop in a mirror area of the other cerebral hemisphere; this may or may not disappear following removal of the primary focus.

### **Surgical Disconnection of the Hemispheres**

The etiology of seizures in such patients includes developmental abnormalities, perinatal hypoxia, and birth trauma. Established neurosurgical techniques, such as wide excision of cortical and subcortical foci with electroencephalographic spiking and/or temporal lobectomy, are generally ineffective in this young group. Hemispherectomy has been the procedure of greatest value in selected cases, but its application is usually restricted to patients with a complete hemiplegia and hemianopsia, lest a greater neurological deficit be created by the surgery in exchange for seizure control. The concept of disconnection of the cerebral hemisphere for the control of seizures is based on laboratory evidence that the corpus callosum is the major pathway for interhemispheric seizure propagation. Therefore, the operative procedure should include sec-

tion of the corpus callosum in addition to the anterior commissure, a hippocampal commissure and one fornix. The disabling neurological deficits which occur when major commissures are interrupted by pathological processes are not produced by surgical disconnection in the human.

### **Hemispherectomy in Children**

The hemisphere removed in infantile hemiplegia is always the non-dominant one, since a loss of function (if it ever existed) in the affected side has already occurred due to disease. It is generally agreed that intellectual function does not deteriorate following removal of one cerebral hemisphere; in fact, it has been observed that there is total improvement following removal of the diseased hemisphere. Speech, if developed, is located in the intact or good hemisphere, consequently, the left and right hemispheres are equipotential in this respect.

What is the reason for the maintenance or improvement of intellectual status when the affected hemisphere is removed? Firstly, the good side ceases to be bombarded by the abnormal activity generated in the diseased hemisphere. This is illustrated by the changes in the pre-operative tracing obtained from the intact hemisphere as compared to a more normal pattern when the epileptogenic cortex is removed. Secondly, the patient is no longer intellectually blunted by massive anticonvulsant therapy, which is invariably given prior to operation. Thirdly, the good hemisphere is no longer subjected to periods of hypoxia associated with seizures. For all these reasons, as well as the improved cooperation obtained through personality improvement, the patient performs better following the removal of the affected hemisphere.

### **Chronic Cerebellar Stimulation**

The concept of chronic cerebellar stimulation has been developed from the thesis that Purkinje cell inhibition can be artificially induced to modify neurological activity which is abnormally and undesirably heightened by pathologic facilities or inhibition. Moruzzi<sup>1</sup> re-



ported that stimulation of a single area of the anterior lobe of the cerebellum could produce either inhibition or facilitation, depending upon the frequency of the stimuli. He observed that frequencies of 10 cycles/sec. increased rigidity, while frequencies of 100 to 300 cycles/sec. resulted in reduction in comparable rigidity. In addition to its profound effect on spinal motoneuron activity, it was demonstrated that the cerebellum possessed important modulating effects on the cerebral cortex via both thalamic and brainstem mechanisms. Moruzzi<sup>1</sup> concluded that a reticulospinal pathway to internuncial neurons brought about inhibition of spinal motoneurons.

Cooke and Snider<sup>2</sup> showed that cerebellar stimulation could alter the electrical pattern of the cerebral hemisphere harboring the epileptogenic focus. In 1964, Ito and Yoshida<sup>3</sup> showed that stimulation of the cerebellar cortex induces inhibitory Purkinje cell discharge that projects to motoneurons of the spinal cord which participate in control of motor movement, or is directed to cerebral cortex *via* brainstem reticular formation, modulating motor and other behavioral activity at higher levels. Thus, the cerebellar cortex can be thought of as a potential storehouse of inhibition designed to react to complex inflow of information, which the Purkinje cell inhibitory outflow can modify at various levels of the nervous system information processing mechanisms.

The surgical approach to the rostral cerebellum is through an occipital craniectomy and incision of the tentorium cerebelli. A plate of silicone mesh, with four pairs of electrodes, is placed over an anterior cerebellar hemisphere. The electrodes are stimulated through an antenna fixed subcutaneously on the chest. A frequency of 7-200/cs and intensity of 0.5-14 volts are used. Originally stimulation was applied with an automatic power pack stimulator when the patient felt an aura. On the basis of Cooper's<sup>4</sup> clinical experience, a frequency of stimulus of 10-20/cs is the appropriate range of preventing seizures while the

high frequency stimulation of 200 cs is effective in reducing spasticity.

### Thalamic Lesions

Surgically produced thalamic lesions interrupt the build-up of generalized seizure activity by disrupting a discharge pathway or reducing the pool of excitable subcortical neurons to a number below that which is essential for the production of a generalized convulsion. Thalamic lesions have been created in a medial thalamic nuclei by Spiegel and Wycis<sup>5</sup> and the lateral thalamic nuclei by Mullan,<sup>6</sup> with some improvement of patient symptomatology.

### Amygdala Lesions

In patients with bitemporal disease, unilateral temporal lobectomy is not effective in abolishing or favorably modifying seizures. Because of catastrophic effects of bitemporal lobectomy, Talairach<sup>8</sup> in France, created bilateral cingulate lesions. The success rate for this procedure was poor. The Japanese School, however, under the directorship of Narabayashi,<sup>7</sup> had noted that by creating bilateral amygdala lesions, patients with seizures and aggressive behavior became more manageable. This approach has now been used in selected patients for control of aggressiveness.

### Conclusions

There is a group of patients with recurring convulsive disorders who continue to have fits in spite of all medicinal efforts to control the seizures. Among these are some who may be improved or cured by appropriate surgical therapy.

If (a) medical therapy has failed, (b) the epileptogenic lesion is focal, and (c) the lesion can be removed without the production of significant neurological deficit, critical analysis of the patient's problem should be made from the viewpoint that surgery may be helpful.

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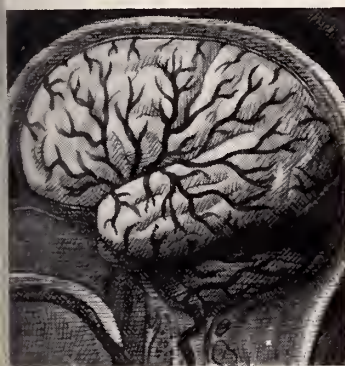
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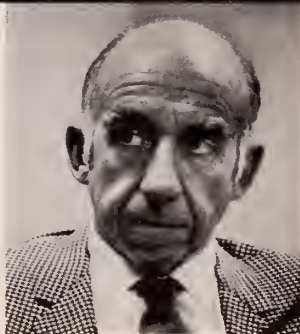
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"I may be prejudiced, but I am very much in favor of the detail man I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

## Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.

"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

## The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be — and at times actually are — disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets — some of it scientifically sound and therefore truly useful — as well as some excellent film produced by the pharmaceutical industry. When they function in th

Opinion  
&  
Dialogue

## He a Source of Information?

Yes, with certain reservations. The average sales representative has a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply prints of articles that contain a great deal of information. Here, I exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. I go without saying that a physician should also rely on other sources for his information on pharmacology.

## Training of Sales Representatives

Ideally, a candidate for the position as a sales representative at a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, and so it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

## Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

capacity they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just "pushers" of their drugs.

## The Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all this material as a labor of love—they are in the business of selling products for profit. In this regard, an ambitious and improperly motivated sales representative can exert a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the physician to depend too heavily on drugs for his total therapy. In these ways, the salesman has often distorted objective reality and determined his potential role as an educator.

## The Industry Responsibility

Since the detail man must be an information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—i.e., the patients—will be.

## Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

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# Antivert®/25 Tablets (25mg. meclizine HCl)

<sup>\*</sup>INDICATIONS. Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows.

*Effective:* Management of nausea and vomiting and dizziness associated with motion sickness.

*Possibly Effective:* Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation

has produced cleft palate in the offspring. Limited studies using doses of over 1 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the human.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

*Usage in Children.* Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

*Usage in Pregnancy.* See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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*Special education services for the handicapped child in a suburban area of New Jersey involve a special education coordinator and a consultant psychiatrist. Five years' diagnostic experience demonstrated a high incidence of "organicity," not surprisingly. Most children examined displayed "mixed" rather than "pure" kinds of handicap. Many complications ensue in the effort by professionals to insure beneficial classroom placement of the exceptional child. Special education remains a controversial field.*

## Five Years of Special Education and Psychiatry in Suburbia

### A Review, Survey, and Critique

**Gerald Meyerhoff, M.D. and  
Carmine A. Salierno, M.A., M. Ed.  
Englewood Cliffs**

One of us has served for more than five years as consulting psychiatrist and the other has been coordinator for a regionalized special education program in Bergen County, New Jersey. Classes have been set up for the emotionally disturbed, trainable and educable retarded, and neurologically impaired to the extent that space, money, and tolerance from the superintendent, in whose district the class is housed, is available. It is difficult intelligently to arrange homogeneous classes for children of varied ages, intellects, presenting clinical difficulties, and learning potential. Though the law requires classification, children do not wear signs announcing their afflictions and diagnoses, and their examinations do not really permit the affixing of labels as we traditionally do. The variations, even among diagnostic aspects of retardation, emotional disturbance, and neurological impairment are myriad. What follows is a report of five years' work in dealing with these issues, including background history, opinions and recommendations.

#### The History of Special Education in New Jersey

Before 1954, there was no formal requirement for special education of handicapped children in New Jersey. Indeed, some forward-looking school districts elected to provide special classes, primarily for their retarded children, but there was no reimbursement from the

state. Senator Alfred Beadleston and the State Senate, in 1954, were responsible for the enactment of legislation which required "each local public school district to identify and classify all handicapped children between the ages of five and twenty and to provide an appropriate educational program for them . . . diagnosis and classification shall include comprehensive medical examination, psychological evaluation, social case study, and educational assessment by approved child study team personnel functioning jointly."

Between 1959 and 1970, successive revisions of the law resulted in elaborate categorizing of handicaps, with reimbursement to the local district depending on the type of handicap (Table I).

Table I

Maximum Annual Tuition Rates\* Effective  
September 1, 1973

Category of Handicap	Maximum Annual Tuition
Emotionally Disturbed	\$4,000
Neurologically Impaired	3,700
Visually Handicapped	3,350
Auditorily Handicapped	3,100
Multiple Handicapped	**
Trainable Mentally Retarded	3,400
Educable Mentally Retarded	2,850
Communication Handicapped	2,550
Socially Maladjusted	2,000
Orthopedically Handicapped	2,200
Chronically Ill	2,100

\*Rate for minimum 180 day school year. Tuition rate for children enrolling during school year should be prorated.

\*\*Maximum rate for child's major handicap may be used for tuition purposes.

New Jersey Department of Education, Division of Curriculum and Instruction, Bureau of Special Education Services

The admittance of a particular pupil to a special education class is not haphazard. The coordinator, under the regionalized special education program, attempts to find a public school class within the district, within the "region" or, lastly, in a nearby "region," before considering private schooling.

### **Special Education in Region III**

Region III is one of seven special education regions in Bergen County designated by the county superintendent of schools for the purpose of coordinating services to handicapped children. Region III comprises nine communities in northeastern Bergen County which have a combined population of approximately 40,000. Middle class values and conservative or moderate political views prevail. There is no high-rise zoning and minority-class children number only in the scores. There is strong emphasis on upward mobility and parents see the schools as the vehicle to success for their offspring. This report deals with pupils through the eighth grade.

### **Role of the Coordinator**

The office of special education, housed in a modern neatly-appointed curriculum center, offers the separate districts, in the person of the coordinator, a resource individual who is trained to assist in any situation relevant to the education of the handicapped child. He assists the district child study teams primarily, and classroom teachers and principals when necessary, in the articulation of needs and services for the exceptional child. This consultation service would be much too costly, and hence impractical, to be provided in the individual districts.

### **The Psychiatrist's Contribution**

The psychiatrist has been employed continuously by Region III since January 1969, in connection with the requirements of the New Jersey Beadleston Act. Since there was no precedent for psychiatric consultation on a formal basis, that role was originally defined by the psychiatrist-author according to (1) what seemed to be the needs of the Region

and (2) his own interests and available time. Interestingly, the original and tentative plan has been maintained over the subsequent five-year period with only slight modifications.

In order smoothly to introduce this new consultation service the psychiatrist appeared at least once in each district, during the first two years, for either a lecture-seminar with the teachers and administrator or a parent-teacher evening meeting.

It was decided that the psychiatrist should be an itinerant who would see children in their own school environment (and *in* the classroom when indicated) rather than in the fairly centrally-located Region III offices. This practical method is, however, not universally used in other Regions. A three-hour (and later two-hour) block of time was set aside, weekly, during the 38-40 week school year. Originally, a strict rotation system was employed, with the psychiatrist appearing at the respective district to examine any child designated by the child study team. However, various districts could not utilize this regular service while other districts were invariably seeking more frequent consultations. Arrangements were changed so that appointments could be "booked" in advance by the various districts through the coordinator's office. Hence, there is generally a 3-6 week wait for regular consultations. Emergency consultations are offered via utilization of strategic "open" times in the psychiatrist's schedule, approximately monthly, or by juggling appointments. Any "open" consultation time not spoken for is filled with trips for special class observation in the company of the coordinator or for familiarization visits to prospective private or hospital facilities relevant for a particular child.

The child study teams of each district select the children who need psychiatric evaluation. Most often an opinion is sought as to the suitability of a child for a specific special education placement. The usual background data are made available for the perusal of the psychiatrist: a social history, health summary, anecdotal accounts from teachers, and psychologi-

cal testing results are mandatory. Frequently a learning assessment report is provided and, sometimes, outside neurological examination opinions are included. These data are summarized on a single sheet by the teams for the convenience of the psychiatrist. The psychiatric examination of the child then proceeds, sometimes including classroom observation and often including a modified neurological examination. A verbal *and written* opinion and recommendations are promptly offered the team (one of its members is invariably present) and within a week the final, typographically correct, report is mailed to the child study team. With this *immediate* sharing of findings the team can meet with the parents regarding results within days, where this is indicated. Recommendations to the team vary from suggestions regarding psychotherapy in the community, to referral for special class placement, to direct opinions about medication (Table 2). In no case is psychotherapy provided by the psychiatrist and no prescriptions are written. That is, parental permission is obtained for forwarding recommendations to suitable treatment agencies, physicians, private practitioners, and so on. Some districts, especially in medically or neurologically sticky situations and newly "discovered" psychosis problems, prefer to schedule parent conferences immediately following psychiatric examination. In such cases the psychiatrist, in the company of the child study team, meets the parents and offers an opinion, recommendations, and support.

Table 2  
Treatment Recommendations—5 Years  
N=162

Medication	Cases	
	No.	%
Medication alone <sup>1</sup>	5	3.1
Medication <sup>1</sup> with other plan <sup>2</sup>	83	51.2
No Medication		
Therapy alone <sup>3</sup>	12	7.4
Therapy <sup>3</sup> with other plan <sup>2</sup>	54	33.3
Other		
No recommendation—no diagnosis	6	3.7
No recommendation—no disorder	2	1.3
Total	162	100%

<sup>1</sup>Continued, started or changed

<sup>2</sup>Remedial help, various psychotherapies, residential placement, etc. in assorted combinations

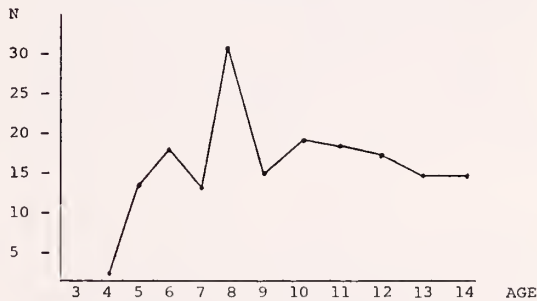
<sup>3</sup>Individual, group, parent, family in assorted combinations

Survey of Five Years

In the five years (1969-1973 inclusive) 162 children were evaluated by the psychiatrist-author. (Twelve of these 162 children were subsequently re-evaluated with results not included here). In 150 of the 162 cases the standard psychiatric examination was employed. In five cases, the children were not seen formally and recommendations were made on the basis of a conference with the teacher, with multiple professional reports available; in seven cases, examination consisted of classroom observation, teacher conference, and reading of reports.

The age range of the children was 4 to 14, with a fairly even distribution for ages 5-14, except for age 8 which was significantly over-represented (see figure #1). The explanation for this is that age 8 coincides with the 3rd grade, at which point (1) learning disabilities become more dramatic (2) persistent behavior antics, more easily tolerated in 1st and 2nd grades, are unacceptable (3) there are, pragmatically speaking, more varied types of special education classes available for consideration by referring child study teams.

Figure 1  
Age Distribution of Children Examined  
N=162



The gender distribution of referrals was 136 males to 26 females or approximately 5:1, which follows the expected pattern of childhood emotional and learning problems, in which females seem less demonstrably deficient. This ratio also reflects the greater hyperkinetic-learning-organic panorama of problems (MBD Syndrome) variously reported as 4:1 to 8:1 more prominent in males (Paine).



Over half (87 of 162) of the children seen had some "organic" features (Table 3). This is testament to a somewhat changed perspective in child psychiatry, over the past ten years or so, in which behavior and learning difficulties in children are less and less frequently viewed as primarily the result of parent foul-ups, internalized conflicts, or aberrant neighborhood socio-cultural influences. Classes for children with constitutional deficiencies, in the learning-hyperkinetic-organic panorama axis, are now available, along with learning

sometimes separately, but often concurrently. It is to be noted that, for the purpose of this report, all non-psychotic and non-organic children's diagnoses have been arbitrarily lumped together—adjustment reaction of childhood (ARC), personality disorder PD, behavior disorder BD, and neurosis, not surprisingly, make up the next largest subgrouping, 60 of 162 or 37 percent.

Schizophrenia was found in 7 of 162, or approximately 4 percent of the children. When diagnosed it was thought to be *qualitatively* different from all other entities. However, much recent work supports the notion that childhood schizophrenia is a misnomer and that there are, rather, several types of childhood psychosis (with "organic" traits), instead of a childhood version of adult illness constellation known as schizophrenia (Eisenberg, Ritvo).

In just two cases was psychiatric illness not diagnosed. One child was the sibling of a diagnosed disturbed youngster and had no disorder; the other was seen to be suffering from culture shock following geographical dislocation.

As to treatment recommended, in 88 of 162 cases, medication was considered advisable (Table 2). Of course, a number of these children were already receiving medication *via* a clinic or private practitioner; a change in brand or adjustment of dosage was sometimes suggested. For the remainder, the recommendation for a trial of medication was innovative, however. In only 5 of the 88 cases was medication, *exclusively*, seen as the prospective "answer." That is, in the 83 cases in which medication was considered, additional, concurrent plans were usually recommended, including the full range of traditional treatment services—from residential placement, as the most radical, to remedial help, as the most conservative, and including resource rooms, individual, group, or family psychotherapy, speech therapy, and so on. In only 12 cases psychotherapy alone, in one of its forms, was suggested. In 54 cases psychotherapy in addition to one or several of all the *other* mo-

Table 3  
Psychiatric Diagnosis of Children—5 Years  
N=162

	No.	%
<i>Organicity</i>		
OBS <sup>1</sup> (Organic Brain Syndrome) Mild	43	26.5
OBS Severe <sup>2</sup>	4	2.4
OBS and Behavior Disorder <sup>3</sup>	29	17.9
OBS and Retardation and Psychosis	2	1.3
OBS and Retardation	6	3.7
OBS and Psychosis	1	.6
Retardation only	2	1.3
<i>Schizophrenia</i>		
Childhood Schizophrenia	6	3.7
Latent Schizophrenia	1	.6
<i>Behavior Disorders<sup>3</sup></i>		
ARC, BD, PD, Neurosis	60	37.1
<i>Other</i>		
Deferred <sup>4</sup>	6	3.7
No Psychiatric Illness	1	.6
Social Maladjustment Only	1	.6
	162	100%

<sup>1</sup>Hyperkinetic, Minimal Brain Dysfunction Syndromes, Learning and Speech Disability

<sup>2</sup>Includes Brain Trauma (2), Toxoplasmosis (1), Tuberculous Meningitis (1)

<sup>3</sup>Includes Adjustment Reaction Childhood, all Behavior Disorders Except Hyperkinetic, Personality Disorder, Neurosis

<sup>4</sup>Later Diagnosis: OBS and BD (3); Behavior Disorder (3).

disabilities specialists, for early identification of problems. Teachers are more alert and less naïve, and parents are more sophisticated and well-read. This diagnostic direction is not, however, another illustration of Parkinson's Law—e.g. invent a new classification, provide classroom space, and soon have hordes of children to fill it. Rather, it is the result, finally, of success in offering children with assorted learning and behavior problems the twin devices of (1) special education (whether that be tutorial help, a resource room, or a special classroom) and (2) medication—

dalities of treatment *except* medication was favored (Table 2).

A breakdown of specific medication recommendations is beyond the scope of this paper. In perhaps 75 percent of cases, however, the analeptic preparations, Dexedrine® and Ritalin®, were favored as first choice, following a diagnosis in the minimal brain dysfunction "family." With the remainder of children, "organic" as well as "non-organic," a variety of major or minor tranquilizers or anti-depressants was recommended.

The fairly specific diagnostic results (Table 1) demonstrate that we have faithfully moved to examine and diagnose children in the traditional way over this five-year period, as the law demands. However, we have been interested in excellence rather than mere nosology. In fact, our own diagnostic results have occasionally thwarted our placement efforts (for example, finding emotional disturbance rather than organicity in a child at a time when our only opening was in a neurologically impaired program) but we have resisted the temptation to manipulate. With children who present several concurrent diagnoses, however, we can choose the special class which would be most beneficial, taking into consideration the variables of age, gender, class program, and teacher style.

## Problems

Despite the lure of fifty percent reimbursement for expenses incurred in educating a handicapped child in New Jersey, many districts are reluctant to establish new classes. The cost of a new class may exceed fifteen thousand dollars the first year. Moreover, these monies are sometimes not returned to the district for (in some cases) nearly two years. The public cannot easily understand this game of numbers and the invariable increase in total expenses *plus \$15,000* is considered inflationary. In addition, Boards of Education rarely delineate reimbursement figures for special education, which are reported in a total amount along with other state aid monies. Therefore, the coordinator must at times do a selling job with adminis-

trators and boards. Happily, his clientele are often sensitive, concerned educators and trustees who are knowledgeable money managers at budget time.

Perhaps the most controversial issue in the education of handicapped children is the question of how that job is best accomplished. The debate between the advocates of "mainstreaming" and the advocates of "self-contained" has existed for decades (Graham; Hilgard). At present, with the popularity of the newer Resource Room concept (Hammill) few special educators openly dare to challenge the premise that handicapped children should be kept as physically and socially close as possible to their "normal peers" (Brenton). But what about severely retarded or severely autistic children in Resource Rooms? In short, the Resource Room compromise is viewed by many well respected professionals as "pie in the sky" thinking and hardly a panacea for the problem of educating *all* exceptional children. In any event, neither children nor parents are happy with special class labels. No matter how carefully designations of classes as "special" are avoided, there is universal recognition of a status difference by children and adolescents who, inevitably, are "cruel" to their peers. The epithets of "stupid" and "retarded"—a regular occurrence—are attested to by the tears of the victims, witnessed by all professionals who have worked with such children. The pendulum has swung slowly back and forth over the last four decades as to the best method of educating exceptional children and, inevitably, will continue to swing.

No discussion of problems besetting the special educator and the consulting psychiatrist would be complete without a few thoughts regarding the absurdity of our classification system. We are certainly well meaning as we figuratively inspect the signs these children wear around their necks so that special classes can be homogeneous. But, there is rarely a pure breed of handicap. Emotionally disturbed children of the psychotic-autistic variety are, more and more, noted to have subtle and/or debilitating organic features in care-

ful clinical examination. Some of these children, moreover, function at such a level of intelligence as to be formally "retarded." Logic dictates that all "retarded" children ultimately have an "organic" or "brain injury" legacy, whether that be on a constitutional or ante-natal basis. To this extent, mental retardation is a redundant term, as all such children are ultimately "brain damaged." Children who are "socially maladjusted" quite frequently have subtle or severe learning disabilities which result in compensatory acting-out. These are the children who would rather be regarded as "bad" than "dumb" (Kozol). Even with severe neurologic impairment, it is clear that comparatively few children present themselves as exclusively having cerebral palsy or some hereditary, stigmatized disorder; rather, some accompanying learning or emotional problem is frequent. As regards mild neurological impairment (the hyperkinetic syndrome), there is a vast panorama of learning and behavior problems subsumed, in assorted combinations (Clements, *et al.*). Such children, while attempting to compensate, can appear "socially maladjusted," which further clouds the issue. Often, therefore, the primary signs of dysfunction in the child are obscured by secondary or even tertiary problems. In the Diagnostic and Statistical Manual of the American Psychiatric Association—1968, we are ordered to diagnose retardation *first*, if it is manifest. These complications inevitably result in multiple diagnoses, as in our series (Table 2). Of course, it would be better to employ a multi-axial classification of child psychiatric disorders (Rutter), but that is apparently an idea whose time has *not* come. In any event, some greater flexibility with classifications is needed, so that handicapped children can be placed in the most beneficial program available *for them*, without regard for rigid diagnostic categorizations.

### Summary and Comment

The authors discuss the origin of special education services in the public schools of New

Jersey and its implementation in Region III of Bergen County. The roles and methods of the special education coordinator and consultant psychiatrist are discussed. A review of five years' experience in psychiatric examination and diagnosis of referred children indicates a fairly large proportion of *organically* handicapped children. It is noted that New Jersey's present elaborate scheme for defining the various handicaps is inappropriate, since most children present mixtures rather than "pure" syndromes. A "nuts and bolts" kind of description of the way the authors work is presented. Some aspects of the actual philosophy of special education are discussed and a recommendation for a more flexible method of placing children in special education classes is offered.

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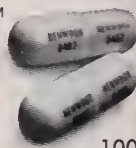
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**Contraindications:** The use of ethaverine hydrochloride is contraindicated in the presence of complete atrioventricular dissociation.

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**Adverse Reactions:** Although occurring rarely, the reported side effects of ethaverine include nausea, abdominal distress, hypotension, anorexia, constipation or diarrhea, skin rash, malaise, drowsiness, vertigo, sweating, and headache.

**Dosage and Administration:** One capsule three times a day.

**How Supplied:** 100 mg capsules in bottles of 50 and 500.



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# CASE REPORTS

*A 71-year-old female had multiple cutaneous chloromas (granulocytic sarcoma) for three and a half years before she developed rapidly fatal acute myelomonocytic leukemia, which was preceded by fifteen months of progressive pancytopenia. The interval between onset of chloromas and the development of leukemia is unusual. The misinterpretation of chloromas as histiocytic lymphoma-cutis during the preleukemic interval is not uncommon. Histological classification of the immature cells of the chloroma as myelocytic rather than histiocytic is difficult. In the case reported, PAS-positive granules were identified in cells from lymph nodes, bone marrow, and skin typical of granulocytic leukemia rather than histiocytic lymphoma.*

## An Unusual Case of Granulocytic Sarcoma (Chloroma)\*

**Daniel Frimmer, M.D. and  
Joseph M. Quagliana, M.D./Plainfield**

"Chloroma (Granulocytic Sarcoma) refers to a condition characterized by the occurrence of localized tumors in relation particularly to the periosteum and ligamentous structures of the skull, paranasal sinuses, orbits, spine, ribs and sacrum."<sup>1</sup> Chloromas, however, have been reported invading virtually every organ in the body with skin being a commonly involved site. Although chloromas are usually accompanied by peripheral blood or marrow evidence of acute non-lymphoblastic leukemia, they have been noted to precede leukemia by as much as two years.<sup>2,3</sup> They are composed of uniformly primitive cells of the myelogenous series which are difficult to classify histopathologically. The differentiation between histiocytic lymphoma and chloroma (granulocytic sarcoma) is difficult even with special cytochemical staining.<sup>2,4</sup> The course of the illness, once leukemia is manifest, is dominated by the leukemic feature and is indistinguishable from acute leukemia without chloromas.<sup>1</sup>

We wish to present an unusual case of multiple skin chloromas, initially classified as reticulum cell sarcoma-cutis.

### Case History

On January 6, 1972, a sixty-nine year old female was referred to the University of Utah Medical College, Division of Radiation Therapy, for treatment of painful enlarging skin lesions. In January, 1970, a lesion on the leg, similar to the present ones, was biopsied. The patient was told it was a malignant lymphoma but slides and records were not available. A single x-ray treatment and a cortisone injection directly into the tumor were administered and the lesion promptly disappeared. In October, 1971, similar lesions appeared

in several sites and gradually increased in size. By January, 1972, a tumor on the left lower back had become painful enough for her to seek treatment.

There were no systemic manifestations of malignancy. The past medical history revealed multiple medical problems including varicophlebitis and vein stripings, arteriosclerotic heart disease with myocardial infarctions and angina, hypertension, peptic ulcer, and Parkinson's disease. Anemia (type unknown), not requiring transfusions, was a life-long problem. The patient had taken multiple drugs, including Peritrate®, Valium®, Darvon®, aspirin, and Talwin®.

Physical examination revealed an elderly female in little distress. Blood pressure was 180/120. The skin showed several one to two centimeter, elevated, infiltrative reddish-purple maculopapular lesions involving the medial aspect of the left thigh, the left upper back and right flank. A larger lesion on the left low back was quite painful. There was no adenopathy, hepato-splenomegaly, or sternal tenderness. Biopsy of two lesions was interpreted as lymphoma-cutis, reticulum cell type. In retrospect, the skin showed an intact, normal appearing epidermis. The dermis was infiltrated by a diffuse proliferation of cells which were uniform in appearance. They had large, oval to round nuclei and a smooth, fine chromatic pattern and occasional small eosinophilic nucleoli. The cytoplasm was moderate in amount and slightly eosinophilic. Thin collagen bands separated cords of tumor cells in some areas. The lesion extended to both margins and the base of resection. A PAS stain demonstrated the presence of coarse, positive granules in the cytoplasm of the majority of the cells. This same abundant coarse PAS positivity was subsequently found in the cytoplasm of the leukemic cells on February 20, 1973.

Laboratory evaluation showed a white blood count of 2,000 per cubic millimeter with 44 per cent neutrophils, 42 per cent lymphocytes, 8 per cent monocytes, 6 per cent eosinophiles, hematocrit 37, MCV 120, MCH 39, MCHC 34, platelets 240,000, ESR 39. Serum chemistries were normal except for an SGOT of 57 Mu/ml (Normal less than 48 Mu/ml).

The lesions were treated with 250 KV x-rays, 1600 to

\*This work was supported by American Cancer Society Clinical Fellowship and Clinical Cancer Training Grant No. 3T12CA08010-0751. Dr. Frimmer was then a Fellow in Oncology at the University of Utah College of Medicine, where Dr. Quagliana is Associate Professor in the Department of Medicine and Chief of the Division of Oncology.



2,000 rads surface dose in four to five fractions over five days and promptly regressed. On March 13, 1972 the patient was in remission and asymptomatic, but by December, 1972, she returned with similar lesions on the left lateral chest wall and right breast. During previous ten months the patient required transfusions of two units of blood every two months. There was no history of bleeding. Multiple hematinics, including vitamin B<sub>12</sub> and iron, had been tried with no success. She continued to take only the drugs identified in January. General physical examination was unchanged; there was no adenopathy, hepatosplenomegaly, or sternal tenderness. Tanning was present in the areas of previous radiation, but there was no recurrence of tumor in these sites. On the right breast there was a one by one centimeter lesion; on the left flank there was a six by six by one centimeter raised tender, purple mass with several small satellite nodules. After transfusions, the hematocrit was 35, the white blood count 1500 with 34 per cent neutrophils, 36 per cent lymphocytes (some atypical), 30 per cent monocytes, 2 per cent eosinophils, 2 nucleated red cells/100 cells, 0.6 per cent reticulocytes, and platelets 71,000. Red blood cells showed marked anisocytosis and poikilocytosis; the peripheral blood smear was compatible with myelofibrosis or myelophthisis. A bone marrow aspirate was dilute and not interpretable, while the biopsy showed a marked hypoplastic marrow with small areas of cellularity. The latter showed a slight erythroid hyperplasia and increased numbers of normal-appearing megakaryocytes. Ringed sideroblasts were not seen but there was a single lymph follicle present. Direct and indirect Coombs tests were negative. Serum iron/total iron binding capacity was 220/280; serum T<sub>3</sub> and T<sub>4</sub> stool for occult blood, and serum chemistries were normal. Chest x-ray showed cardiomegaly; liver-spleen scan was normal. Screen test for paroxysmal nocturnal hemoglobinuria was negative.

The cutaneous lesions were irradiated with 1500 rads over three days. All drugs were stopped. On December 27, 1972, the white blood count was 1.4 per cubic millimeter, hematocrit 30, platelets 36,000. The skin lesions again responded completely.

On March 3, 1973, she noted a painful tumor in the umbilicus. For the first time she related a history of recurrent fevers; antibiotics were prescribed but had not helped. There was also diffuse abdominal discomfort and her transfusion requirement had increased. On physical examination, there was a firm, tender umbilical mass which measured three by two and one-half by one centimeters. There were enlarged, tender lymph nodes in the left infraclavicular space, the left axilla, and the right groin. The liver was enlarged, but an edge was not felt because of the abdominal tenderness. There was no splenomegaly. White blood count was 1,200 with 30 neutrophils, 69 lymphocytes, 1 monocyte; hematocrit was 34 and platelets 101,000. The umbilical lesions were irradiated with 750 rads surface dose in one treatment.

By March 19, 1973, the pancytopenia had been replaced by a picture in both blood and bone marrow of acute leukemia. The white blood count was 58,000 with 84 per cent blasts; platelets were 25,000 and hematocrit 35 per cent. The peripheral blood showed a marked increase in nucleated cells, anemia, neutropenia, and thrombocytopenia. The nucleated cells were predominantly blast forms and monocytoid cells. They had nuclei with a fine chromatin pattern and from one to four relatively indistinct nucleoli. There was a moderate amount of cytoplasm, mostly light blue in color, with fine vacuolization. A striking reddish granulation was seen in many of the cells. There was a

range of differentiation among the leukemic population, some showing the characteristics of myeloblasts with few differentiating features and others showing monocytoid features with nuclear folding and more abundant cytoplasm. Auer rods were demonstrated. The marrow was solidly hypercellular. The cells showed the same features as those in the peripheral blood, but with relatively more blasts and fewer monocytoid cells. A peroxidase stain showed peroxidase-positive material in many of the leukemic cells. A PAS stain showed coarse PAS-positive cytoplasmic granulation in many of the blast population. Chromosome analysis was normal.

Physical examination showed diffuse adenopathy, hepatosplenomegaly, ascites, and multiple ecchymoses. She was initially treated on March 22, 1973 with Oncovin®, prednisone and Zylprim®. A day later, after special stains were reviewed, she was switched to Cytosar® and thioguanine. On April 3, 1973, her white blood cell count was 500 per cubic millimeter. Temperature rose to 105° and despite antibiotics, transfusion of platelets and packed red cells, she died.

Autopsy showed a picture compatible with acute myelomonocytic leukemia with infiltrates involving lymph nodes, ovaries, pancreas, adrenal glands, and bone marrow. A histologic section of lymph node showed aggregates of mature-appearing lymphocytes, surrounded by diffuse areas of extramedullary hematopoiesis. This cellular proliferation extended into loose fibrous tissue and adipose tissue. On the periphery, there were areas of cellular proliferation similar to that of the skin biopsy and showing the same degree of PAS positivity. There was no evidence of histiocytic lymphoma. Post mortem examination also revealed bilateral basilar subdural hematomas, myocardial fibrosis, ascites, bilateral pleural effusions, and extensive intestinal bleeding.

In summary, this elderly lady had recurrent chloromas (granulocytic sarcoma) since January, 1970, a hypoplastic bone marrow in December, 1972, and terminally, three and one-half years after presentation, acute myelomonocytic leukemia.

## Discussion

Chloromas were first described by Burns in 1811<sup>5</sup> but Dock in 1893<sup>6</sup> was the first to show its relationship to acute leukemia. Turk<sup>7</sup> was the first to point out that the chloroma cells were morphologically the same as cells in acute myeloid leukemia. Since then, all chloromas have been associated with either myeloid, monocytic or stem cell leukemia.<sup>8,9</sup> Chloromas are most commonly seen as orbital tumors, which are green in color because of the enzyme myeloperoxidase. This distinct green color is frequently absent so they are better named granulocytic sarcomas.<sup>10</sup> Although chloromas usually occur coincidentally with acute leukemia, they can antecede the leukemia by as much as two years.<sup>3,4,11</sup> The course of the disease is similar to acute myeloid leukemia with chloromas at onset. Hematological

remissions with chemotherapy have been achieved.<sup>2,3,12</sup> Chloromas have regressed<sup>3</sup> but relapses have been early<sup>2,3</sup> and may precede blood or bone marrow relapse. Chloromas have been treated with local x-ray therapy and responded.<sup>3,4,12</sup>

Differentiation of chloromas (granulocytic sarcomas) from histiocytic lymphomas is difficult because of the problem of classifying the immature cells by routine histologic sections. Wiernik<sup>3</sup> suggested that the separation is not possible and the cases of reticulum cell sarcoma transforming to acute myelogenous leukemia might be non-pigmented, granulocytic sarcomas from onset. This would also explain simultaneous occurrence of histiocytic lymphomas and acute myelogenous leukemia.<sup>13,14</sup>

Comings<sup>4</sup> used reticulum stains to differentiate between myeloblastoma and reticulum cell sarcoma transformation to leukemia. A feature of chloromas which helps in the classification is the presence of eosinophilic myelocytes and metamyelocytes. This is suggestive but not diagnostic.<sup>11</sup> Maloney<sup>15</sup> used naphthol AS/D chloracetate as the substrate and garnet GBC Diazo salt to stain sites of esterase activity. Granules in the myeloid series and mast cells stain red-brown. Mason<sup>2</sup> was first to describe ultrastructure examination of tissue for granulogenesis. Finally, the demonstration of cell maturation toward mature granulocytes excludes the diagnosis of histiocytic lymphoma.

In our case all sections showed identical patterns of granular PAS positivity in the cytoplasm, a finding not uncommon in granulocytic leukemia. Histiocytes have been uniformly negative by PAS staining, leading to the diagnosis of recurrent skin chloromas. The question of PAS negativity in histiocytic lymphomas is of some importance here. In McKenna's experience,<sup>18</sup> lymphomas are uniformly PAS negative. Occasional cells will show a very faint fine aura of PAS positivity on imprint or bone marrow smear, but not on section material such as in this case. Normal histiocytes may show some coarse PAS cyto-

plasmic inclusions due to phagocytized material but not resembling the pattern seen in this case.

Our patient was felt to have reticulum cell sarcoma-cutis until rapidly progressing adenopathy, hepatomegaly, and fever suggested a diagnosis of disseminated histiocytic lymphoma. Then, a precipitous rise in the peripheral white count suggested acute leukemia which was subsequently confirmed. It is now established that exposure of humans to various forms of radiation is followed by increased incidence of leukemia, as seen among survivors of Hiroshima who developed leukemia from two to six years after exposure.<sup>16</sup> To date, no definite threshold dose of radiation to induce leukemia in humans is known.<sup>16,17</sup> The short latent period from radiotherapy to leukemia, along with the small tissue volumes treated in our patient, argues against radiation-induced leukemia. Finally, there is the pancytopenia and hypoplastic bone marrow which transformed to acute myelogenous leukemia, a not too uncommon pre-leukemia picture.

This report emphasizes: (1) the difficulty in making the diagnosis of chloroma (granulocytic sarcoma) prior to the onset of acute myelogenous leukemia and the long interval that can occur between onset of tumors and the findings of acute leukemia and (2) the value of PAS staining to separate diffuse histiocytic lymphoma-cutis from granulocytic sarcoma.

The immediate importance in separating granulocytic sarcoma from histiocytic lymphoma is in the choice of staging procedures required to differentiate a systemic lymphoma from acute leukemia. Established present day evaluation of lymphomas is elaborate, time consuming, and costly, whereas leukemia can usually be diagnosed by bone marrow evaluation. A long range although hypothetical consideration of granulocytic sarcoma will be early treatment of this pre-leukemic condition with antileukemic drugs, when such drugs are shown to produce "cures" in acute myeloid leukemia.

#### Non-proprietary and Trade Names of Drugs

Oncovin®	—vincristine sulfate
prednisone	
Zyloprim®	—allopurinol
Cytosar®	—cytarabine
Thioguanine, Tabloid®	—thioguanine (6TG)
Valium®	—diazepam
Peritrate®	—pentaerythritol tetranitrate
Darvon®	—propoxyphene napsylate
Talwin®	—pentazocine

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#### Self-Assessment Program for Surgeons

The second surgical education and self-assessment program (SESAP) of the American College of Surgeons is now available for distribution to physicians. It is designed to provide the surgeon with an objective measure of the strengths and weaknesses in his professional knowledge. The ultimate goal is to provide patients with more knowledgeable surgeons.

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*An alimentary tract duplication located at the terminal ileum in a 21-year-old male is presented. The puzzling clinical manifestations of the lesion evidently delayed its early detection. Histologically the lesion had all the entodermal epithelial components differentiating from the "primitive foregut" and probably represents a "foregut cyst" that had migrated down to the terminal ileum.*

## Enteric Cyst and Recurrent Abdominal Pain in an Adult

**Jai Y. Lee, M.D., Marvin Shuster, M.D.,  
Hugo Duran, M.D., and Belardino Lupini,  
M.D./Perth Amboy\***

Duplications of the gastrointestinal tract are uncommon congenital anomalies. Some of the names for these are: reduplications, enteric cysts, enterogenous or enterogenic cysts, ileum duplex, giant diverticula, inclusions cysts, and gastric thoracic cysts.<sup>1</sup>

They are usually segmental, and may involve any portion of the alimentary tract from the tongue to the anus.<sup>2</sup> Multiple duplications are seen in approximately 1.5 percent of the cases.

The ileum is the most common site of occurrence. They are usually located between the leaves of mesentery, and the cyst wall is intimately attached to, or fused with, the digestive tube. In about 80 percent of duplications, there are no communications with the lumen of the main adjacent alimentary tube. For this variety with no communication, the term "cyst" is more appropriate. Duplications are usually extramural, but may rarely be intramural. The blood vessels supplying a duplication also include the adjoining bowel segment. The lining epithelial types are varied, and may be quite different from the adjoining bowel mucosa. A duplication of the esophagus, for example, may sometimes be lined by colonic mucosa. Occasionally, two or three types of alimentary tract mucosa are present in one duplication. Many esophageal (as well as enteric) cysts are partially or wholly lined by bronchial mucosa and the wall may contain cartilage.<sup>3</sup> If a duplication contains a gastric mucosal lining, erosion or ulceration, even with perforation of a com-

municating bowel segment or a non-communicating cyst wall, may occur.

### Case Report

A 21-year old male was admitted because of recurrent episodes of abdominal pain, localizing mainly in the right lower quadrant of the abdomen or at times, in the epigastrium. He had a vague history of gastrointestinal bleeding. He had previously been hospitalized at age 16 and 19 with abdominal pains of the same character without bleeding. On those two occasions, the clinical impression was acute appendicitis but a normal appendix was removed at age 19. There was no history of nausea, vomiting, fever, or chills and no leukocytosis. Intravenous pvelogram and barium enema revealed a sharply outlined, low-lying right pelvic mass, three inches in diameter, which was extrinsic to the urinary tract, and caused some extrinsic pressure upon the bowel. (Figure 1). Laparotomy showed a cystic mass attached to the terminal ileum about six inches from the ileocecal valve. The cyst was large and soft, and the blood supply to the bowel was included in the cyst. A resection of the terminal ileum and the cystic mass was performed en masse along with an end-to-end anastomosis.

### Pathological Findings

The specimen consisted of an 11 cm. long segment of small intestine (Figure 2), the mucosal surface and the 0.4 cm. thick wall of which were grossly unremarkable. On the serosal surface there was an ovoid, soft to firm, and tense cystic mass measuring 11 x 6.5 x 5.5 cm., attached to the mesenteric side of the bowel wall. Externally the cyst was smooth, glistening, and pale pink-tan, with somewhat hyperemic blood vessels which traversed the cyst and also the adjoining bowel wall. The internal lining of the lesion was pale yellowish tan, finely wrinkled or

\*This case report is from the Perth Amboy General Hospital and was supported by the Pathology Research and Development Fund. Dr. Lee is Resident in Pathology; Dr. Shuster is Associate Director of that department; Dr. Duran is Attending Surgeon; and Dr. Lupini is Associate Attending in Medicine. Reprint requests may be directed to Dr. Shuster.



Figure 1—X-ray showing pelvic mass distorting ureter

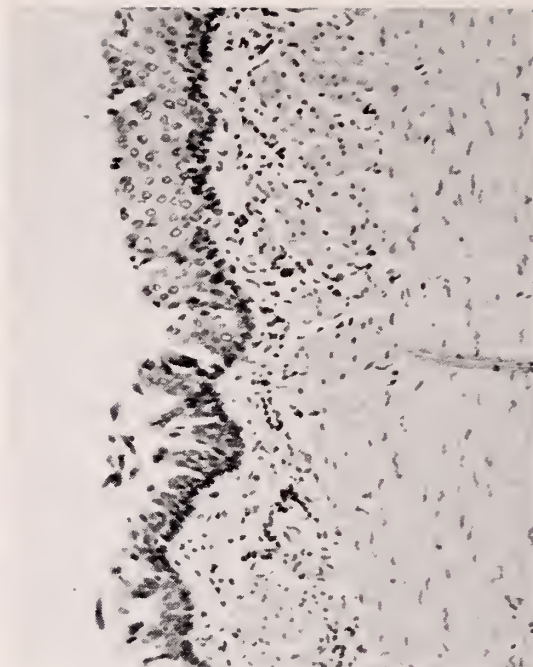


Figure 3—Photomicrograph of cyst lining demonstrating ciliated and squamous epithelial lining

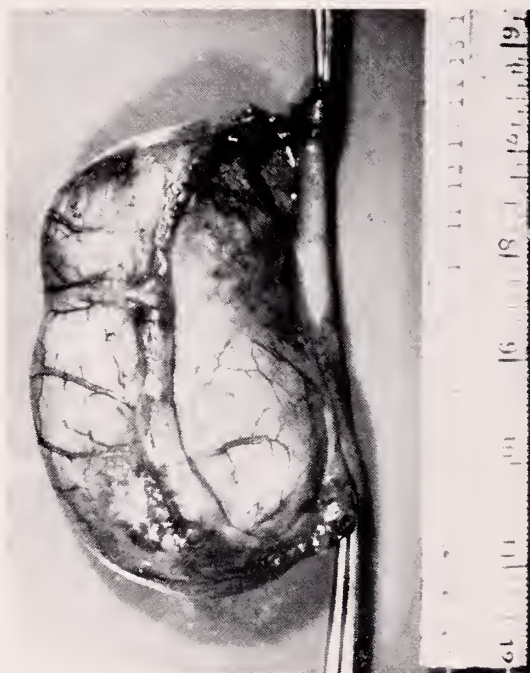


Figure 2—Gross specimen of ileal segment with attached enteric cyst

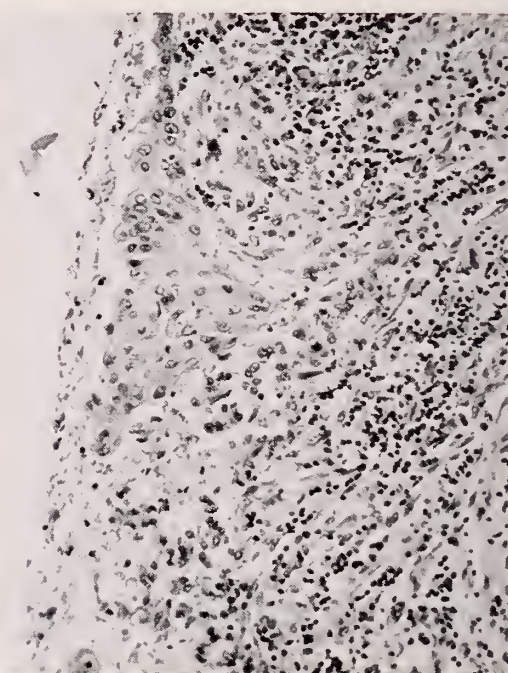


Figure 4—Photomicrograph of ulcerated area of cyst lining



trabeculated, and partially eroded with dusky red color. The cyst wall measured 0.1 to 0.4 cm. in thickness. The eroded portions were remarkably thinner than the trabeculated areas.

Microscopically, the main bowel sections showed an unremarkable ileal mucosa with submucosal edema and slight congestion. The lining epithelium of the cyst wall consisted of various histologic types of mucosa (Figures 3 and 4); a ciliated pseudostratified squamous epithelium of respiratory type, a stratified squamous epithelium of esophageal type, and areas of erosion or ulceration, with sloughed fragments of single cell-layered, tall columnar epithelium of secretory or glandular type. The latter was highly suggestive of the presence of gastric mucosal epithelium with resultant peptic ulceration. Also noted were focal or diffuse sub-mucosal infiltrates of lymphocytes, plasma cells, yellowish pigment-laden macrophages, and capillary congestion. The attached portion between the cyst and the adjacent bowel revealed a broad band-like zone formed by fused circular muscle layers, while there were two (inner circular and outer longitudinal) muscle layers in the non-attached mural portions of the cyst and the bowel.

### Embryologic Consideration

According to Bremer, duplications can be divided into two subclasses on the basis of embryologic origin. One group originates from a "diverticulum," while the other is the "true" duplication. Spherical cysts originate mostly from diverticula. Around the embryonic age of eight to nine weeks, diverticular buddings of the gut epithelium are a normal process of growth, and they are normally absorbed later. If they are not absorbed and continue abnormally to grow, cysts are formed on the ventral or anti-mesenteric surface of the alimentary tube. Their wall is always thinner than the adjoining bowel wall. Most of the tubular and some spherical structures are "true" duplications. In normal embryos of six to seven weeks, the cells of the thickened epithelial (cell) mass during the so-called

"solid stage" of the digestive tube secrete a fluid that gathers into small intercellular droplets called "vacuoles." If any one of those vacuoles in the primitive digestive tube is not fused with others in forming the main lumen and persists to grow separately from the bowel lumen, it can become a segmental duplication. The outer wall of these "true" duplications contains all the tissue layers of the gut, since they develop within the digestive tube.

In the very early embryonic period, the entodermal layer forms a hollow tube ("primitive foregut") throughout the coelomic cavities.<sup>4</sup> The primitive foregut is later differentiated to form the esophagus, the stomach, and the respiratory system which accounts for the occurrences of the mixed epithelial types. Because there are differences of linear growth rates between the lining mucosal epithelium and the rest of the outer bowel wall (e.g., muscular coats), the "cysts" of non-communicating type can migrate along with the rapidly growing outer wall, from the sites of their original development to other portions of the gastrointestinal tract.

### Clinical Aspect

Duplications or cysts are usually found in infancy or childhood. Complications include bowel obstruction, pain due to distention of the cyst, sloughing of the bowel mucosa and hemorrhage resulting from the interrupted blood supply,<sup>5</sup> intussusception,<sup>6</sup> and peptic ulceration of the cyst or the adjacent bowel, with or without subsequent perforation and peritonitis.<sup>7</sup> It is very difficult or practically impossible for a surgeon to dissect the lesion away from the adjoining bowel, because of the fused muscular layers and the common blood supply of the two, as mentioned previously.

There is an important pathologic difference between duplications and the so-called "mesenteric cyst." The latter are lymphatic in origin, have a thin wall consisting of little more than an endothelial lining covered by scant fibrous tissue<sup>8</sup>, and are easily peeled away from the adjacent viscera during surgery.



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## Putting out the fires of arthritic pain

Rheumatoid arthritis can sometimes spread like wildfire, with joint after joint going up inflamed: "The usual onset is manifested by spotty joint involvement but an acute onset of symmetrical polyarthritis may be noted."<sup>1,2</sup>

If aspirin fails, consider Butazolidin alka. Giving one capsule four times a day often provides prompt, pain-relieving, anti-inflammatory action to help restore joint mobility. The results you can get within a week can be maintained on as little as one or two capsules daily.

Serious side effects can occur. Select patients carefully (particularly the elderly) and follow them closely in line with the drug's precautions, warnings, contraindications and adverse reactions. For full details, please read the prescribing information. It's summarized on the back of this page.

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Ragan, C.: The Clinical Picture of Rheumatoid Arthritis. in Arthritis, ed. 8, edited by J. L. Hollander and D. J. McCarty, Jr., Philadelphia, Lea & Febiger, 1972, chap. 21, p. 335.

**Geigy**

**Important Note:** This drug is not a simple analgesic. Do not administer casually. Carefully evaluate patients before starting treatment and keep them under close supervision. Obtain a detailed history, and complete physical and laboratory examination (complete hemogram, urinalysis, etc.) before prescribing and at frequent intervals thereafter. Carefully select patients, avoiding those responsive to routine measures, contraindicated patients or those who cannot be observed frequently. Warn patients not to exceed recommended dosage. Short-term relief of severe symptoms with the smallest possible dosage is the goal of therapy. Dosage should be taken with meals or a full glass of milk. Substitute alka capsules for tablets if dyspeptic symptoms occur. Patients should discontinue the drug and report immediately any sign of: fever, sore throat, oral lesions (symptoms of blood dyscrasia); dyspepsia, epigastric pain, symptoms of anemia, black or tarry stools or other evidence of intestinal ulceration or hemorrhage, skin reactions, significant weight gain or edema. A one-week trial period is adequate. Discontinue in the absence of a favorable response. Restrict treatment periods to one week in patients over sixty.

**Indications:** Rheumatoid arthritis, osteoarthritis, bursitis, acute gouty arthritis and rheumatoid spondylitis.

**Contraindications:** Children 14 years or less, senile patients, history or symptoms of G.I. inflammation or ulceration including severe, recurrent or persistent dyspepsia, history or presence of drug allergy; blood dyscrasias, renal, hepatic or cardiac dysfunction; hypertension; thyroid disease, systemic edema, stomatitis and salivary gland enlargement due to the drug, polymyalgia rheumatica and temporal arteritis; patients receiving other potent chemotherapeutic agents, or long-term anticoagulant therapy.

**Warnings:** Age, weight, dosage, duration of therapy, existence of concomitant diseases, and concurrent potent chemotherapy affect incidence of toxic reactions. Carefully instruct and observe the individual patient, especially the aging (forty years and over) who have increased susceptibility to the toxicity of the drug. Use lowest effective dosage. Weigh initially unpre-

dictable benefits against potential risk of severe, even fatal, reactions. The disease condition itself is unaltered by the drug. Use with caution in first trimester of pregnancy and in nursing mothers. Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.

**Precautions:** The following should be accomplished at regular intervals. Careful detailed history for disease being treated and detection of earliest signs of adverse reactions, complete physical examination including check of patient's weight; complete weekly (especially for the aging) or an every two week blood check, pertinent laboratory studies. Caution patients about participating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.

**Adverse Reactions:** This is a potent drug; its misuse can lead to serious results. Review detailed information before beginning therapy. Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with perforation and hemorrhage, ulceration and perforation of large bowel, occult G.I. bleeding with anemia, gastritis, epigastric pain, hematemesis, dys-

pepsia, nausea, vomiting and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G.I. bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow depression, sodium and chloride retention, water retention and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (cholestasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), exfoliative dermatitis, serum sickness, hypersensitivity angitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic reactions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumatica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hyperglycemia, thyroid hyperplasia, toxic goiter, association of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy, CNS reactions associated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia, ulcerative stomatitis, salivary gland enlargement (B)98-146-070-J (10/71)

For complete details, including dosage, please see full prescribing information.

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*Luetic lymphadenitis simulating an acute attack of inguinal hernia is documented. Awareness of this possibility by attending physician will undoubtedly improve the management of the surgical patient.*

## Luetic Lymphadenitis Simulating an Acute Attack of Inguinal Hernia

### Report of a Case\*

**Bernard Peison, M.D. and Candido DeBorja, M.D./Rahway**

In spite of the excellent methods for diagnosing and treating syphilis, the disease is still widespread with a marked upsurge of reported cases in recent years.<sup>1</sup> Study by Hartsock, *et al.*,<sup>2</sup> of the clinical records of 20 patients, with luetic lymphadenitis, showed that nine of them complained of a painful mass in the inguinal region. In six patients surgical procedures were performed because the possibility of incarcerated hernia could not be excluded; only three of these patients were known to have syphilis before the operation was undertaken.

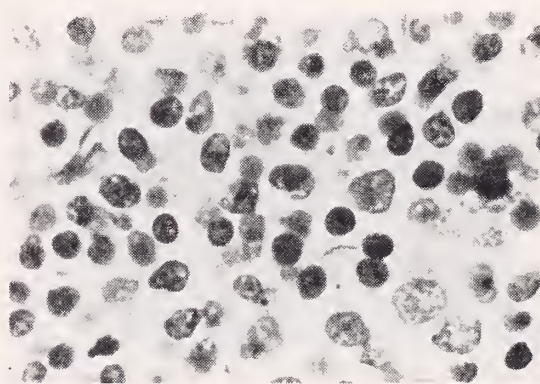
Because of its importance in the management of the surgical patient, another instance of an acute attack of inguinal hernia due to syphilitic infection, in the absence of a visible penile lesion, is documented.

A 23-year-old male was admitted to Rahway Hospital on 12/27/73, because of an enlarged painful tender mass in the left groin which was first noticed nine days prior to admission. It appeared rather suddenly, following a fall at work, and gradually became increasingly painful and tender. No nausea or vomiting was present.

Physical examination revealed normal blood pressure, heart, and lungs but temperature elevation to 101.4 F was recorded. The abdomen was slightly distended and hyperactive bowel sounds were audible. A tender mass was felt in the left inguinal region, but no penile lesion was noted. Admission blood count revealed 9,100 white cells with 77 percent polys, 9 percent bands, 12 percent lymphs, 2 percent eosinophils. Urinalysis, x-ray of the chest and abdomen were normal.

A clinical diagnosis of incarcerated, left, inguinal hernia was made and the patient underwent surgical exploration which revealed a large mass occupying the

entire femoral canal. It was diagnosed grossly as enlarged lymph nodes. On section, the cut surface revealed a gray, glistening appearance which resembled fish-flesh. The mass of nodes measured up to 4.2 cm in diameter. Microscopic examination revealed severe, reactive, follicular and paracortical hyperplasia, with numerous irregular, active, germinal centers showing necrotic foci, and proliferation of immunoblastic cells scattered throughout the paracortical regions. Within the capsule, there were numerous vessels which appeared involved by the inflammatory process. Subsequent reports revealed a positive VDRL (1:16 titer) and FTA abs tests. Warthin-Starry technique for spirochetes (*Treponema pallidum*), demonstrated them to be present in all portions of the lymph nodes, although most consistently identified in the walls of blood vessels.



Inguinal lymph node showing spirochete. (Warthin-Starry x 1000)

### Comments

Syphilis is still a common, although often overlooked disease, which must be considered in the differential diagnosis of localized or generalized lymphadenopathy. Recognition that a tender mass in the inguinal region

\*From the Department of Pathology, Rahway Hospital, Rahway New Jersey where Dr. Peison is Director of Laboratories and Dr. DeBorja is Associate Attending Surgeon. Send reprint requests to the Department of Pathology, Rahway Hospital, 865 Stone Street, Rahway, New Jersey 07065.

may consist of enlarged syphilitic lymph nodes will undoubtedly help the surgeon to decide which case should be operated and which treated conservatively. The histologic changes of luetic lymphadenitis are variable and consist primarily of reactive cortical and paracortical hyperplasia with necrotic foci within the germinal centers and proliferation of immunoblastic cells. Although this constellation is not pathognomonic of luetic lymphadenitis, the changes are sufficiently distinctive that syphilis should be considered a diagnostic possibility. Special silver stains will readily demonstrate the spirochetes.

phadenitis, the changes are sufficiently distinctive that syphilis should be considered a diagnostic possibility. Special silver stains will readily demonstrate the spirochetes.

### References

1. Sparling PF: Diagnosis and treatment of syphilis. *N Engl J Med* 284:642-653, 1971
2. Hartsock RJ, Halling W, King FM: Luetic lymphadenitis: A clinical and histologic study of 20 cases. *Amer J Clin Path* 53:304-314, 1970

Rahway Hospital (865 Stone Street)

## Out-of-State Patient Cannot Sue Hospital in Courts of His Own State

A New Jersey patient who contracted hepatitis while undergoing treatment in a New York hospital could not bring an action against the hospital in a New Jersey court, a federal trial court in New Jersey ruled.

When the patient mailed notice of the suit to the hospital pursuant to the New Jersey longarm statute, the hospital objected. It had no facilities or agents in New Jersey, had never done any business in the state, and thus could not be forced to defend a suit in that state, the hospital contended.

Under a series of decisions by the U.S. Supreme Court, a corporation must have sufficient minimum contacts with a state before it can be sued there, the trial court said. It was clear that the hospital had insufficient contacts in New Jersey to say that it was doing business in that state, the court said.

Unlike the case in which an out-of-state corporation shipped goods into a state and was subjected to a suit in that state's courts, this case involved a service provided by the hospital. The patient himself had sought out the services of the hospital. The consequences of the negligently performed services naturally followed the patient wherever he went, but it was fundamentally unfair to permit a suit in whatever distant jurisdiction to which the patient should go. The patient traveled to the hospital, and he should expect to travel again if he had complaints about the service rendered.

Because the New Jersey courts could not with fairness exercise jurisdiction over the hospital, the court granted its motion to dismiss the case against it.—Gelineau v. New York University Hospital, Civil Action No. 1755-73 (D.C., N.J., May 1, 1974)

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# NEW JERSEY DOCTORS' NOTEBOOK

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## Trustees' Minutes

December 15, 1974

A regular meeting of the Board of Trustees was held on December 15, 1974, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

*William J. Dougherty, M.D.* . . . Noted that a testimonial dinner honoring William J. Dougherty, M.D., Deputy Commissioner of Health, who retires January 1, 1975, will be held on January 31, 1975 at the West Trenton Firehouse: tickets (\$12.50) may be obtained from Frank DeFrancesco at the State Department of Health.

*Congress on Medical Education* . . . Approved a recommendation that Arthur Bernstein, M.D., Chairman of MSNJ's Committee on Medical Education, and Mr. Martin Johnson, Executive Assistant, be authorized to attend, as MSNJ representatives (with expenses paid), the 71st Annual Congress on Medical Education (AMA) in Chicago, January 31 to February 2, 1975.

*Medicare Peer Review Committee* . . . Approved the selection of additional members of the Medicare Peer Review Committee and referred the list of subspecialty members to the specialty societies involved for review and substitution where indicated. (List was submitted for MSNJ approval by J.E.D. Gardam, M.D., Medical Director of Governmental Health Programs, Prudential Insurance Company.)

*Medical Kickback Rule* . . . Approved a recommendation that the Board of Trustees direct a communication to the State Board of Medical Examiners requesting a reconsideration of the rule on "Medical Kickbacks."

*Certificate of Need* . . . Approved the following report from the Executive Director on the public hearing on the definition of health care facilities:

Quoting extensively from MSNJ's legal and practical arguments, the Hearing Officer questioned the legal and practical viability of the proposal. His recommendations are as follows:

1. That all those responsible for the approval and promulgation of the proposed rule consider the transcript of the hearing as well as the written communications made a part of the record thereof.
2. That a communication be addressed to the Office of the Attorney General summarizing the arguments presented at the hearing and requesting an opinion as to the legality and constitutionality of the proposed rule.
3. That, if the Attorney General's opinion is to the effect that the proposed rule is constitutional, those responsible for the promulgation of the rule should be satisfied, through documented proof, that it would further the intent of the Health Care Facilities Planning Act by providing related health care services of the highest quality, of demonstrated need, efficiently provided and properly utilized, and at a reasonable cost. No such documented proof was presented at the hearing.
4. If after such consideration it is determined that the proposed rule is warranted and desirable, it can then be promulgated.

To protect MSNJ's position, the Executive Director will serve notice on the Commissioner of Health that any such proof, if now supplied, would be "outside the record" and would further request that if such proof is developed, the Society be afforded an opportunity to respond thereto.

*Council on Legislation* . . . Approved the following recommendations from the Council on Legislation:

1. That the draft of legislation prepared by the legislative analyst dealing with the amendment to the *Lien Law Pertaining to Physicians* and the Council's amendment thereto to include all licensed health care facilities be approved.
2. That the amendment to A-2317 (Law c. 322) which contains all the items called for in Resolution #15 (1974 House of Delegates) emphasize these elements and include a requirement that physicians prominently display, in their offices, a schedule of fees for laboratory services thus eliminating the necessity of sending a bill to the patient with a breakdown of the costs incurred be approved.
3. That the following be adopted to implement the report of the Ad Hoc Committee to Study and Redefine the Role and Function of the Council on Legislation:
  - a. Soft dollar administrative assistance to JEMPAC



b. Liaison members of MSNJ become members of the Executive Committee of JEMPAC.

c. Membership and leadership begins at the top, therefore, it is urged that members of the Board of Trustees have membership in JEMPAC.

d. The legislative arm of the Woman's Auxiliary be used more actively.

e. JEMPAC reports be presented to the Council on Legislation.

f. The Emergency Action Committee be utilized whenever practical and possible and consider contacting specific members of the specialty societies concerning any legislation affecting that specific society.

*Medical Defense and Insurance . . .* Approved the following recommendations from the Committee on Medical Defense and Insurance:

1. That the Epic homeowners insurance policy be offered to the membership of MSNJ.

2. That the upper surcharge limit for physicians' liability insurance rates be 200% rather than 500%.

*AMA Clinical Convention . . .* Received a report from the Chairman of the New Jersey Delegation to the November 30-December 4 AMA Clinical Convention which included the following highlights:

1. Mandatory \$60 special assessment for AMA members, exclusive of students, interns, and residents, approved by the House of Delegates, effective January 1, 1975

2. AMA Board of Trustees urged to restore the structure of several councils and committees which were to have been eliminated, and to maintain present publication schedules for *JAMA*, all specialty journals, and *Prism*.

3. Approved advertising as a legitimate function in AMA publications: urged that a study of the advertising program be reported to the June AMA meeting.

4. Beginning in 1977, the House of Delegates will hold its fall meeting separately from the scientific session, which will be held regionally at other times during the year as deemed necessary.

*Monmouth County Medical Society . . .* Directed that, in reply to Monmouth County Medical Society's expressed dissatisfaction, a response be directed to the President of that Society pointing out the procedures regularly taken to keep the general membership and the county societies informed of activities at the state level, and requesting a list of the issues causing discontent in the Monmouth County Society.

*Unified AMA Membership . . .* Directed that a committee be established for encouragement of AMA membership, the personnel of which would consist of representatives from the Board, the House of Delegates, and the Officers, and that the presidents and executive secretaries of the component societies be requested to supply MSNJ, by a specific date, with the method by which their respective county societies are implementing the following resolution adopted by the House of Delegates at the special session on December 8, 1974:

RESOLVED, that The Medical Society of New Jersey and each of its federated county societies, strongly recommend that each of their members also be a member of, and support the activities of, the American Medical Association.

*New Jersey Regional Medical Program Advisory Group . . .* Noted that I. Edward Ornaf, M.D., has been selected to fill the vacancy on the Regional Advisory Group of the New Jersey Regional Medical Program, created by the death of Louis K. Collins, M.D., member and President of that group. Dr. Arthur Bernstein, M.D., a member of the Advisory Group has succeeded Dr. Collins as their President.

*MSNJ Representation at Meetings of State Board of Medical Examiners . . .* Concurred in the decision of the President and Chairman of the Board that MSNJ Board members attend meetings of the State Board of Medical Examiners on a rotating basis, thus permitting all members of the Society's Board of Trustees to observe these meetings.

*Training Program for Medical Directors in Skilled Nursing Facilities . . .* Noted that a one-day training program for medical directors in skilled nursing facilities will be held in conjunction with the 1975 AMA annual meeting to be held in Atlantic City in June; six CME credit hours will be awarded.

## **Annual Meeting**

May 31-June 3

Cherry Hill

## CMDNJ Notes

Stanley S. Bergen, Jr., M.D.  
President, CMDNJ

The dictionary defines ethics as moral principles, quality, or practice. There is a connotation of dignity, responsibility and conduct that, generally speaking, is quite personal. In many cases, the consequence of unethical behavior is limited to the individual and his loved ones and, perhaps, to a relatively small circle of victims. Rarely, however, does it have the life-and-death impact that quite literally underlies the ethics of the medical profession.

To delineate these ethics is something else again, because much as we like to think of them as the ideal, they are subject to change and development. What do we tell — or not tell — a dying patient and his family? What about abortion, ethically speaking? And consider the debate raging about the application of genetic research.

To help shed light on controversial subjects and bring them out into the open, the College of Medicine and Dentistry of New Jersey organized a series of President's Seminars on Issues of Ethics in the Biomedical Sciences and Patient Care. We are grateful to the Merck Company Foundation of Rahway for a support grant that makes them possible.

In the first lecture, Eric J. Cassell, M.D., held that physicians can actively help dying patients to accept the fact of death by assisting them to overcome fear and to retain "control" until the last possible moment. This may not work in all cases, he conceded, but enough patients do respond favorably to make the physician's role a valid one.

Dr. Cassell is a recognized authority on aging, disease, and environmental problems. A practicing internist, he is clinical professor in public health at Cornell University Medical College, lecturer at the Mount Sinai School of Medicine, and assistant attending physician to in-patients at New York Hospital. He is a member of the board of directors, a fellow and a member of the task force on death of the Institute for Society, Ethics and the Life Sciences.

"If you think your job is simply to cure disease," Dr. Cassell told the audience, "you have nothing to offer the dying patient, but if you conceive of your primary function as making people better, there is a great deal you can do. The patient facing death can be 'made better' — that is, he can die better." Dr. Cassell said loss of fear is more than passive acceptance of death, because it permits the patient to function. He said pain is often an element of fear which the physician can and should quickly remove.

"You do not make the rain, but you make your reaction to it — you open an umbrella or find shelter," he said. "Similarly with dying. It may be inevitable, but there is a reasonable chance of helping the patient to understand that control of one's death is as possible as control of one's life. "When that happens, and fear is removed, a certain calmness takes over, not only in the patient but among his loved ones and others, such as the medical personnel who are involved."

The speaker at the second session, Joseph Fletcher, S.T.D., a prominent theologian and professor of medical ethics, addressed himself to issues of genetics and called for a new "morality of human reproduction" based "on the quality of life, rather than on the sanctity of life regardless of its quality."

Dr. Fletcher is visiting professor of medical ethics at the University of Virginia and professor emeritus of the Episcopal Theological School, an affiliate of Harvard University.

"People with serious genetic defects who knowingly and willingly reproduce that defect," he said, "are more monstrous than the monsters they create . . . Knowingly to reproduce a defective child or even to conceive at risk to the fetus is highly immoral in the forum of conscience. People are quite wrong to oppose selective abortion . . . All of us carry from eight to ten bad genes and their incidence, their frequency, their presence in the common or general gene pool will be doubled in 200 years, if not sooner, if no rational or purposive direction is taken . . . If we go on with our traditional, familiar mode of reproduction, by sexual roulette, with the attitude that you have to take what you get, in a kind of pre-scientific reproductive fatalism, then

there is no future for the general gene pool except progressive degradation.

"I find in this that from now on we ought to use sexual intercourse for lovemaking, and artificial modes for baby-making. Modern medicine has decisively separated lovemaking from baby-making. The first important step in that direction on a social scale was, of course, the rapid development of planned parenthood and birth control. But that's only the first step, medically and biologically. The artificial isn't unnatural; it only uses nature's forces seriously and selectively and constructively."

Our third speaker, Daniel Callahan, Ph.D., urged the medical profession to adhere to a public morality, which he defined as a "social consensus."

Dr. Callahan is director of the Institute of Society, Ethics and the Life Sciences, the so-called Hasting Institute, in Hasting-on-Hudson, (NY). It is a research and educational organization devoted to examining ethical problems emerging from developments in medicine and biology.

"We see today a glorification of a highly individualistic ethic," Dr. Callahan said, "but medicine and biomedical research cannot continue to develop and carry on, on that basis."

In a situation in which the individual is told he can devise his own ethics, Dr. Callahan said, disputes are commonly resolved in the courts or legislatures. "But," he added, "this leaves a large, empty but important middle ground, namely a public, or social morality whose acceptance is quite apart from law and litigation. Medicine cannot simply make everything a matter of legislation. If there are too many laws, life will be impossible for physicians and everyone else."

Dr. Callahan cited the area of human experimentation as an example of acceptance of an ethical standard during the past 20 years. He said the essence of "the emerging public morality on experimentation is that you cannot experiment on human beings without their consent." Another morality that seems to be emerg-

ing in medicine, he said, is that the public be consulted before a "radical" breakthrough, as in genetic engineering, "which has very large implications for the future life of our children."

"If a public morality is not accepted," Dr. Callahan warned, "we will increasingly see an enormous amount of nasty bickering and dispute of a kind that has not characterized medicine up to now. An example of such a dispute is the abortion debate, which has not been resolved despite a Supreme Court ruling."

## Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during July 1974:

	1974 December	1973 December
Aseptic meningitis	11	14
Primary encephalitis	7	2
Hepatitis: Total	189	148
Infectious	74	71
Serum	53	28
Unspecified	62	49
Malaria	0	0
Meningococcal meningitis	0	8
Mumps	65	75
German measles	10	12
Measles	29	188
Salmonella	81	60
Shigella	33	32
Tuberculosis	66	
Syphilis: Total	74	90
Primary	27	34
Secondary	47	56
Gonorrhea	1180	1343

### Meningitis 1974

Encephalitis and meningitis are foremost in evoking an emotional response from the community. Meningitis, an inflammation of the covering of the brain, can be caused by various organisms including viruses, bacteria, and mycobacteria (TB). Recently New Jersey experienced a small outbreak of a bacterial meningitis due to *Neisseria meningitidis*, Group C, at a State College.



There were three cases occurring over the month of November. The first case occurred in a female sophomore and was fatal. The second case occurred also early in the month but was not reported to either the college or the Department of Health until mid-November because the patient became ill while traveling on the west coast. The third case occurred in the third week of November. All three cases were determined to be due to *N. meningitidis*, group C.

The control measures instituted included extensive use of a meningococcal Group C vaccine. The vaccine is made of the polysaccharide portion of the cell wall. It is antigenic only for group C. It had been used extensively in the armed services and has successfully eradicated Group C meningococcal disease as a major cause of morbidity and mortality in the military. This was the first time the vaccine had been released for use in a civilian population. Over the ensuing week after the third case was documented, 12,000 people were vaccinated. In addition, a random culture survey of 1,400 individuals on the campus was accomplished and a very low carriage rate (0.5%) was found to exist for meningococcus Group C.

The campus pub employees and their social contacts were found to have a much higher carriage rate (14%) and all three cases were epidemiologically linked to this group. This group was treated with antibiotics and was cultured in order to insure that the organisms had been eradicated. Follow-up cultures on all persons treated were negative with one exception and a random survey of 500 people both immunized and unimmunized done one week after classes resumed revealed no Group C meningococcal organisms on the campus. No new cases of meningococcal meningitis have occurred and it is felt that no excess risk exists for the college students or their contacts.

The Health Department is taking part in a study of sporadic meningococcal meningitis over the next three months. We are attempting to answer questions concerning secondary attack rates, risk factors, and efficacy of antibiotic therapy in controlling secondary cases. Please notify the Health Department (609-292-7300) immediately if any cases of meningococcal disease occur.

## Report from the Foundation

**Daniel J. O'Regan, M.D., Medical Director**

New Utilization Review (UR) regulations concerning Medicare and Medicaid patients were published in the Federal Register on November 29, 1974, and are scheduled to take effect on February 1, 1975. However, the American Hospital Association has requested an extension of this date.

These regulations are designed to be compatible with the PSRO program and to permit an orderly transition as the PSROs become operational. They will create a single UR system for both Medicare and Medicaid. Review will be done in the hospitals under the supervision of State agencies until the PSRO takes over. The directives are consistent with those found in Public Law 92-603, the PSRO legislation.

Utilization review is to be done by hospital committees, and is to include: (1) concurrent review of admissions — review will start within one working day of admission, with final determination within two working days; (2) concurrent review of stays of extended duration, and (3) medical care evaluation studies. Criteria and standards used will be developed by the hospital's UR committee, and appropriate regional norms will be used for assigning dates for review.

Medical Care Evaluation Studies are aimed at the quality and efficiency of the delivery of care. These retrospective studies should be part of the continuing education program in the hospital. Each hospital must have at least one study in progress at all times, and must complete at least one study annually.

There are also provisions for review of Skilled Nursing Facilities (SNF), intermediate care facilities, and long-term hospitals.

All concerned with utilization and medical audit functions in hospitals are urged to familiarize themselves with these regulations. The Foundation, consistent with its role in the emerging PSRO era, will be glad to answer requests for further information.

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# Treatment Schedules for Gonococcal Infections

The 1974 recommended treatment schedules for uncomplicated gonococcal infections in men and women, prepared by the Center for Disease Control of DHEW, appeared in the item "Therapeutic Drug Information," page 969 of the December 1974 issue of *JMSNJ*. The following is additional information for treatment of gonococcal infections in other groups of patients.

## *Treatment of Uncomplicated Gonorrhea in Pregnant Patients*

A. For women who are not allergic to penicillin use the regimens of aqueous procaine penicillin G plus probenecid, or use ampicillin plus probenecid.

B. For pregnant patients who are allergic to penicillins there are several possible alternative regimens, each of which has potential disadvantages:

(1) Erythromycin, 1.5 gm orally, followed by 0.5 gm four times a day for 4 days, for a total of 9.5 gm. This regimen is safe for mother and fetus, but efficacy has not been established. Erythromycin estolate should not be used in patients with underlying liver disease.

(2) Cefazolin, 2 gm intramuscularly, with 1.0 gm of probenecid. Because of the possibility of cross-allergenicity between penicillins and cephalosporins, this regimen should not be used in a patient with a history of penicillin anaphylaxis.

(3) Spectinomycin, 2 gm intramuscularly. This is an effective dose, but safety for the fetus has not been established.

**Contraindicated:** Tetracycline should not be used for uncomplicated gonococcal infection in pregnancy because of potential toxic effects for mother and fetus.

## *Acute Salpingitis (Pelvic Inflammatory Disease)*

The diagnosis of acute salpingitis should be considered in women with acute lower abdominal pain and adnexal tenderness on pelvic examination. Since there are no completely reliable clinical criteria on which to distinguish gonococcal from nongonococcal salpingitis, endocervical cultures for *N. gonorrhoeae* are essential in such patients. Therapy, however, should be initiated immediately, without waiting for the results of the cultures.

A. **Hospitalization:** Hospitalization should be strongly considered for women with suspected salpingitis in these situations:

- (1) Uncertain diagnosis, where surgical emergencies must be excluded.
- (2) Suspicion of pelvic abscess.
- (3) Pregnant patients with salpingitis.

(4) Inability of the patient to follow an outpatient regimen of oral medication, especially because of nausea and vomiting.

(5) Failure to respond to outpatient therapy.

B. **Antimicrobial Agents:** Controlled studies of the treatment of acute salpingitis are not available. Initial management must at least be adequate for gonococcal salpingitis. These regimens are known to be adequate for the treatment of gonococcal salpingitis:

(1) Outpatients:

(a) 1.5 gm tetracycline hydrochloride, given as a single oral loading dose, followed by 500 mg, taken orally, four times daily for 10 days.

(b) Aqueous procaine penicillin G (APPG), 4.8 million units intramuscularly, divided into at least two doses and injected at different sites at one visit, OR 3.5 gm of oral ampicillin. One gram of oral probenecid is given along with either penicillin or ampicillin, and both are followed by 500 mg of ampicillin, taken orally, four times daily for 10 days.

(2) Hospitalized patients:

(a) Aqueous crystalline penicillin G, 20 million units, given intravenously each day until clear-cut improvement occurs, followed by 500 mg of ampicillin taken orally four times daily, to complete 10 days of therapy. The need for additional or alternative antibiotics for the treatment of nongonococcal salpingitis requires further study. Since it is impossible to distinguish gonococcal from nongonococcal salpingitis clinically, many physicians also use an aminoglycoside in addition to penicillin and/or antibiotics which are effective against *Bacteroides fragilis* as initial therapy.

(b) Tetracycline hydrochloride, 500 mg, given intravenously four times daily until improvement occurs, followed by 500 mg taken orally four times daily, to complete 10 days of therapy. This regimen should not be used for pregnant women or for patients with renal failure.

(3) Failure to improve on the recommended regimens does not necessarily indicate the need for stepwise additional antibiotics, but requires reassessment of the possibility of other diagnoses and of the specific microbial etiology.

C. The effect of the removal of an intrauterine device on the response of acute salpingitis to antimicrobial therapy and on the risk of recurrent salpingitis requires further study.

D. Adequate treatment of women with acute gonococcal salpingitis must include examination and appropriate treatment of their male sex partners because of the high prevalence of nonsymptomatic urethral gonococcal infection in such men. Failure to treat male sex partners is a major cause of recurrent gonococcal salpingitis.

E. Follow-up of patients with acute salpingitis is essential. All patients should receive repeat pelvic examinations and cultures for *N. gonorrhoeae* after treatment.

## *Disseminated Gonococcal Infection*

A. Equally effective treatment schedules in the arthritis-dermatitis syndrome include:



(1) Aqueous crystalline penicillin G, 10 million units intravenously per day for 3 days, or until there is significant clinical improvement. This may be followed with ampicillin, 500 mg four times a day orally, to complete 7 days of antibiotic treatment.

(2) Ampicillin, 3.5 gm orally, plus probenecid, 1.0 gm, followed by ampicillin, 500 mg four times per day orally, for at least 7 days.

B. In penicillin and/or probenecid allergic patients:

(1) Tetracycline, 1.5 gm orally, followed by 500 mg four times a day orally, for at least 7 days. Tetracycline should not be used for complicated gonococcal infection in pregnancy because of potential toxic effects for mother and fetus.

(2) Erythromycin, 0.5 gm intravenously every 6 hours, for at least 3 days.

C. Additional measures:

(1) Hospitalization is indicated in patients who are unreliable, have uncertain diagnosis, or have purulent joint effusions or other complications.

(2) Immobilizations of the affected joint(s) appears helpful. Repeated aspirations and saline irrigations appear beneficial, but controlled studies of these procedures have not been performed. Open drainage of joints other than the hip is now generally discouraged in patients with gonococcal arthritis.

(3) Intra-articular administration of penicillin is unnecessary, since penicillin levels in the synovial fluid of inflamed joints approximate serum levels; furthermore, intra-articular injection per se may produce a toxic synovitis.

D. Meningitis and endocarditis due to the gonococcus require high-dose intravenous penicillin therapy (at least 10 million units per day) for longer periods: usually at least 10 days for meningitis and 3-4 weeks for endocarditis.

#### *Gonococcal Infection in Pediatric Patients*

Pediatric patients encompass those from birth to adolescence. When a child is post-pubertal and/or weighs over 100 pounds, he or she should be treated with dosage regimens as defined above for adults.

*With gonococcal infection in children, the possibility of child abuse must be considered!*

The efficacy of therapeutic regimens for uncomplicated and complicated gonococcal infections of childhood is unproved at present.

#### *Prevention of Neonatal Infections:*

All pregnant women should have endocervical cultures examined for gonococci as an integral part of prenatal care.

#### *Prevention of Gonococcal Ophthalmia:*

A. One percent silver nitrate (do not irrigate with saline, as this may reduce efficacy).

B. Ophthalmic ointments containing tetracycline, erythromycin, or neomycin are also probably effective.

C. *Not Recommended:* Bacitracin ointment (not effective) and penicillin drops (sensitizing).

#### *Management of Infants Born to Mothers With Gonococcal Infection:*

Orogastric and rectal cultures should be taken from all patients. Blood cultures should be taken if septicemia is suspected. Aqueous crystalline penicillin G, 50,000 units/kg/day, should be administered in two daily doses intravenously, if cultures or Gram-stained smears reveal gonococci. The duration of therapy should be determined by clinical response. In suspected septicemia, an aminoglycoside should also be administered.

#### *Neonatal Disease:*

A. Gonococcal ophthalmia: Patient should be hospitalized. Antimicrobial agents: Aqueous crystalline penicillin G, 50,000 units/kg/day, in two or three doses intravenously for 7 days, plus frequent saline irrigations and instillation of penicillin, tetracycline or chloramphenicol eyedrops.

B. Complicated infection: Arthritis and septicemia should be treated by hospitalization and administration of aqueous crystalline penicillin G, 75,000-100,000 units/kg/day, in four doses, or procaine penicillin G, 75,000-100,000 units/kg/day, in two doses, for 7 days. Meningitis should be treated with aqueous crystalline penicillin G, 100,000 units/kg/day, divided into two or three daily intravenous doses and continued for at least 10 days.

#### *Childhood Disease:*

Gonococcal ophthalmia should be treated with hospitalization and by the administration of aqueous crystalline penicillin G intravenously, 75,000-100,000 units/kg/day, in four doses, or procaine penicillin G, intramuscularly, 75,000-100,000 units/kg/day, in two doses, for 7 days, *plus* saline irrigations and instillation of penicillin, tetracycline or chloramphenicol eyedrops. Topical antibiotics *alone* are *not* recommended in therapy of gonococcal ophthalmitis. The source of the infection must be identified.

Uncomplicated vulvovaginitis and urethritis usually do not require hospitalization. Both may be treated at one visit with aqueous procaine penicillin G, 75,000-100,000 units/kg intramuscularly, and probenecid, 25 mg/kg by mouth. Topical and systemic estrogen therapy are of no benefit in vulvovaginitis. All patients should have follow-up cultures, and the source of infection should be identified, examined and treated.

Infection complicated by peritonitis or arthritis should be treated by hospitalization and administration of aqueous crystalline penicillin G, intravenously, 75,000-100,000 units/kg/day, in four doses, or procaine penicillin G, 75,000-100,000 units/kg/day intramuscularly, in two doses for 7 days.

Treatment of patients with allergy to penicillin: Patients under 6 years of age should be treated with erythromycin, 40 mg/kg/day, in four doses by mouth, for 7 days, for uncomplicated disease. Complicated disease should be treated with cephalothin, 60-80 mg/kg/day in four doses intravenously, for 7 days. Patients older than 6 may be treated with an oral regimen of tetracycline, 25 mg/kg, as an initial dose, followed by 40-60 mg/kg/day in four doses, for 7 days, or an intravenous regimen consisting of tetracycline, 15-20 mg/kg/day, in four doses, for 7 days.

### Creative Talent To Be Exhibited at Annual Meeting

It is the intention of the Committee for the 209th Annual Meeting of The Medical Society of New Jersey to make this meeting entertaining as well as productive. With this in mind, the Committee is preparing an original talent show, whereby the membership can exhibit their creative works or hobbies.

"All work and no play makes Jack a dull boy" — if you have unusual hobbies share them with your colleagues.

The early response to this announcement in the Christmas-New Year's edition of the *Membership Newsletter* indicates there is a wealth of talent out there among your colleagues — why not join them in displaying your hobbies.

Should you wish to participate, please write to Martin E. Johnson, Executive Assistant, The Medical Society of New Jersey, P.O. Box 904, Trenton, New Jersey 08605, and give a brief description of material to be displayed. Suitable arrangements will be made available and all potential participants notified prior to the meeting which will be held at the Cherry Hill Area Convention Center — Garden State Race Track — Cherry Hill, New Jersey, May 31, 1975 through June 3, 1975.

## PHYSICIANS SEEKING LOCATION IN NEW JERSEY

*The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.*

**CARDIOLOGY** — Erich Schneider, M.D., 6632 Aintree Park Dr., Cleveland 44143. Porto Alegre (Brazil) 1964. Board eligible. Group or partnership. Available July 1975.

**GENERAL PRACTICE** — Chung-Hun Chang, M.D., Sacred Heart Hospital, Norristown, Pa. 19401. Seoul (Korea) 1966. Group or partnership. Available July 1975.

**INTERNAL MEDICINE** — Stanley F. Bernstein, M.D., 406 Hillside Ave., Boonton, N.J. 07005. CMDNJ 1972. Board eligible. Group or partnership. Available July 1975.

Deepak Sagger, M.D., 4653 Walford Rd., Warrensville Hgts., Ohio 44128, Ludiana (India) 1970. Board certified. Solo, partnership, or group. Available June 1975.

Jerome H. Seigel, M.D., 9 Washington House, 20 Basil St., London SW 3, England. Georgia 1960. Subspecialty, gastroenterology and liver disease. Board eligible. Partnership or space-sharing. Available July 1975.

Mohammad A. Khan, M.D., 1175 Mathis Ferry Rd., Apt. 2, Mt. Pleasant, South Carolina 29464. Khyber (Pakistan) 1968. Subspecialty, infectious disease. Group or hospital in small or medium-sized community. Available July 1975.

N. K. Thada, M.D., 1770 Grand Concourse, Apt. 6-F, Bronx, New York 10457. Siriraj (Thailand) 1969. Board certified. Subspecialty, hematology. Solo. Available July 1975.

Arnold M. Rochwarger, M.D., 445 East 68th St., Apt. 8-0, New York 10021. Einstein 1968. Board certified. Subspecialty, gastroenterology. Partnership or group. Available July 1975.

Khalil Feiz, M.D., 55 Manor Dr., Apt. 5-A, Newark 07106. Isfahan (Iran) 1967. Subspecialty, gastroenterology and hepatology. House physician, emergency room, alcohol or drug addiction service, hospital or other institution. Available July 1975.

Ernest T. Bajpai, M.D., Box 232, Sycamore, Ohio 44882. Prince of Wales (India) 1955. Board certified. Group, partnership, academic, full time corporation. Available September 1975. (419-927-9111)

**NEUROLOGY** — Joseph E. Stolfi, M.D., 131 South Anton, Montgomery, Alabama 36105. Louisiana State 1969. Board eligible. Group, partnership, or solo. Available August 1975.

**OBSTETRICS AND GYNECOLOGY** — Iqbal Karim M.D., 509 Lafayette Ave., Apt. 6, Buffalo, N.Y. 14222. Dow (Pakistan) 1970. Solo, partnership, or group. Available July 1975.

Calvin E. Chiang, M.D., 1770 Grand Concourse, Bronx, New York 10457. Taiwan 1969. Board eligible. Group or partnership. Available 1975.

**OPHTHALMOLOGY** — Noparat Sujaritchan, M.D., 47-25 49th Street, Woodside, New York 11377. Siriraj (Thailand) 1968. Board eligible. Solo or partnership. Available July 1975.

**ORTHOPEDIC SURGERY** — Robert M. Sheridan, M.D., 18 Pickwick Rd., Dewitt, New York 13214. Board eligible. Association or group. Available July 1975.

**PATHOLOGY** — Lorraine Roth-Moyo, M.D., 101 Humber College Blvd., Toronto (Rexdale), Ontario, Canada. Ottawa 1970. Board certified—AP and CP. Hospital or group. Available Spring 1975.

Josefino C. Aguilar, M.D., 1709 McMillan Rd., Pittsburgh 15241. Santo Tomas 1967. Board eligible — AP, CP, FP. Group, partnership, or solo with hospital or research and teaching. Available July 1976.

A. Tamara, M.D., 1738 Aberdeen Rd., Baltimore 21234. Xaveriana (Bogota, Colombia) 1969. Board certified — CP and AP. Group or partnership. Available July 1975.

Ambika Nanu, M.D., 909-3 Woodacres Apt., Claymont, Delaware 19703. India Institute (New Delhi) 1967. Group or hospital. Available February 1975.

Edward B. Sussman, M.D., USAF Regional Hosp., Sheppard AFB, Texas 76311. North Carolina 1970. Board certified — AP. Primary interest is surgical pathology. Group, partnership, solo. Available July 1976.

**PEDIATRICS** — Bhushan C. Gupta, M.D., 605 East 14th Street, Apt. 9-G, New York 10009. Amritsar (India) 1969. Subspecialty, pediatric allergy. Board eligible. Solo, associate, partnership. Available July 1975.

Hsinn-Hong Wang, M.D., 81-44 168th Street, Jamaica, New York 11432. Taiwan, 1967. Subspecialty, neonatology. Board eligible. Group, partnership, or hospital. Available July 1975.

Melvin I. Katz, M.D., 8 Hallmark Gardens, Burlington, Mass. 01803. NYU 1970. Board eligible. Group, partnership, or multispecialty clinic. Available July 1975.

V. Titus John, M.D., 225 Laird Ave., SE, Warren, Ohio 44482. Madras (India) 1963. Board eligible. Group. Available July 1975.

Hassan Bozorgnia, M.D., 12 Fulton St., Pontiac, Michigan 48053. Tehran 1968. Partnership or hospital. Available July 1975.

**PSYCHIATRY** — Daniel M. Greenwald, M.D., 531 Gunderson St., Oak Park, Illinois 60304. Hahnemann 1968. Academic or full or part-time institutional. Available July 1975.

**RADIOLOGY** — Christopher B. H. Gouw, M.D., 594 North St., Teaneck 07666. Indonesia 1961. Board eligible. Available July 1975.

**SURGERY** — Hermenegildo D. Ante, M.D., 890 Berkshire Dr., Westbury, N.Y. 11590. Manila 1953. Board eligible. Group. Available.

Chi-Hong Yang, M.D., 2116 8th St., Cuyahoga Falls, Ohio 44221. Taipei 1970. Board eligible. Group, partnership, or solo. Available July 1975.

G. P. Sison, Jr., M.D., P. O. Box 364, Willsboro, New York 12996. Santo Tomas (Philippines) 1962. Board certified. Group, partnership, solo, institution. Available.

Allen B. Davis, M.D., Oak Hill Apts E-211, Hagy's Ford Road North, Penn Valley, Pa. 19072. Jefferson 1970. Board eligible. Group or partnership. Available July 1975.

Steven Kahn, M.D., 9634 Basket Ring Road, Columbia, Maryland 21044. New York Medical 1967. Subspecialty, vascular surgery. Board eligible. Group or partnership, solo, academic. Available July 1975.

Bipin N. Doshi, M.D., 4249 Hickory Lane, Cleveland, Ohio 44128. M.S. University (Baroda, India) 1968. Board eligible. Group, partnership, or solo. Available. (216-751-7819)

Henry S. Partridge, M.D., 30 Borglum Rd., Manhasset, New York 11030. Georgetown 1968. Board eligible. Group, partnership, hospital, solo. Available July 1975.

Shuban K. Moza, M.D., 1819 Williamsbridge Rd., Apt. 2-A, Bronx, New York 10461. Srinagar (India) 1965. Board eligible. Group or partnership. Available July 1975.

Chi-Chuen Su, M.D., 603-A Roxborough Ave., Philadelphia 19128. NTU (Taiwan) 1967. Subspecialty, vascular and cardi thoracic surgery. Board certified. Group or partnership. Available July 1975.

**UROLOGY** — Joel W. Goldsmith, M.D., 5700 Arlington Ave., Bronx, N.Y. 10471. SUNY Downstate 1971. Board eligible. Solo or partnership. Available July 1975.

Stefan Loening, M.D., 9500 Euclid Ave., Cleveland, Ohio 44106. Freiburg (Germany) 1965. Board eligible. Group, partnership, or solo. Available October 1975.

Aurelio Benavides, M.D., 733 Marshall Dr., Erie, Pa. 16505. Javeriana (Bogota, Colombia) 1970. Board eligible. Group or partnership. Available July 1975.

John R. Whittaker, M.D., 3411 Wayne Ave., Bronx, N.Y. 10467. Cincinnati 1969. Board eligible. Partnership or solo. Available July 1975.

Bhalchandra Dave, M.D., 230 Jay St., Brooklyn, N.Y. 11201. Gujarat (India) 1968. Associate, partnership, group, solo. Available 1975.



## Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center of the New Jersey Regional Medical Program and the Brookdale Inter-regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, conjointly compile the information contained in this column each month. The New Jersey component is located at the Valley Hospital in Ridgewood. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Following are questions and answers handled by the Center recently.

1. Recently a report appeared in the lay press concerning breast-enlargement related to marihuana use. Does marihuana also adversely affect male reproductive physiology?

With the increasing widespread use of marihuana, controversy continues regarding its safety.<sup>1</sup> Possible complications from long-term high-dose use of the drug must be ascertained. Recent reports indicate that chronic use of large amounts of marihuana may result in gynecomastia and may adversely affect sexual and procreative function in man.

Harmon and Aliapoulos<sup>2</sup> reported gynecomastia in three men between the ages of 23 and 26 who reported smoking marihuana in large quantities for long periods (six years in one case and two years in another). Two of the men were admitted to the hospital for examination. They were found to be fully matured sexually with normal secondary sexual characteristics. Extensive examinations including laboratory

studies ruled out liver disease, feminizing testicular, pituitary, or adrenal tumors, and other exogenous drug administration. The authors concluded that the exact mechanism of action in these cases is not known, but speculated on the chemical similarities between the major active component of marihuana,  $\Delta^9$ -tetrahydrocannabinol, and estradiol. They believed that the gynecomastia may have resulted from a direct action of the cannabinol on the breast, or be due to a direct central nervous system effect, with activation of pituitary prolactin release.

Kolodny and his associates<sup>3</sup> studied plasma testosterone levels in twenty heterosexual men 18 to 28 years of age who used marihuana at least four days a week for a minimum of six months, without use of other drugs during that interval and in 20 matched controls who had never used marihuana. Mean plasma testosterone was significantly lower in the marihuana users than in the control group. Decreased testosterone plasma levels were dose-related. Both abstinence from marihuana use and stimulation with human chorionic gonadotropin during continued marihuana use produced marked increases in testosterone. (The first effect indicated that there was prompt return to normal on cessation of marihuana use and the second effect indicated that the subjects had normal Leydig-cell reserve.) Measurements of liver function, circulating gonadotropins, prolactin, cortisol, and thyroxine were within normal limits. Six of 17 men (35 per cent) examined showed oligospermia, and two men were impotent. Two subjects described impaired sexual potency, and in one of these men, the problem reversed upon cessation of marihuana. The data suggest that chronic intensive use of marihuana may produce alterations in male reproductive physiology through central (hypothalamic or pituitary) action resulting in decreased testicular output of androgen.

Mendelson and his associates<sup>4</sup> studied the relation between chronic marihuana use and testosterone levels in 27 men, 21 to 26 years of age. Plasma testosterone was measured daily before, during, and after a 21-day period of marihuana use. The mean pre-use testosterone level of 12 casual users (who smoked an average of 54 marihuana cigarettes during the 21-day use period) was  $988 \pm 93$  ng per ml, and that of 15 heavy users, who smoked an average of 119 cigarettes, was  $1115 \pm 69$  ng per 100 ml. No statistically significant changes in plasma testosterone levels were observed during and after the smoking period as compared with the pre-smoking baseline levels. The authors concluded that under controlled conditions, high dosage marihuana intake was not associated with suppression of testosterone levels when multiple plasma samples were obtained before, during, and after a 21-day smoking period. Their data do not corroborate an association between chronic marihuana use and decreased plasma testosterone.

In conclusion, it has not been resolved whether chronic use of large amounts of marihuana adversely affect the sexual and reproductive status in the male. This question as well as other metabolic and endocrine effects of the drug await further investigation.

### References

<sup>1</sup>Mendelson J H, et al: *Marihuana: A Signal of Misunderstanding*. Vol I. Government Printing Office, Washington, D.C., 1972, pp 68-246.

<sup>2</sup>Harmon J and Aliapoulos M A: Gynecomastia in marihuana users. *N Engl J Med* 287:936, 1972.

<sup>3</sup>Kolodny R C, *et al*: Depression of plasma testosterone levels after chronic intensive marihuana use. *N Engl J Med* 290:872, 1974.

<sup>4</sup>Mendelson J H, *et al*: Plasma testosterone levels before, during and after chronic marihuana smoking. *N Engl J Med* 291:1051, 1974.

2. Please supply information concerning the usefulness of intra-arterial injections of reserpine to treat Raynaud's syndrome.\*

Patients suffering from Raynaud's disease\*\* and Raynaud's phenomenon† have been subjected to a vast array of treatments in efforts to help them. There are indications in the literature that intra-arterial injections of reserpine may be useful in the treatment of these conditions.

Tindall and co-workers<sup>1</sup> treated 102 patients with Raynaud's disease and Raynaud's phenomenon with intra-arterial injections of reserpine. All patients receiving initial injections were hospitalized. The injection of 1.0 mg to 1.5 mg of reserpine was made into a brachial artery. Two-thirds of the patients showed good or excellent response when they were re-evaluated after one month. Benefits continued in some patients for many months. Side effects were mild in degree and patient acceptance of the procedure was good. Although unsure of the mechanism for this therapeutic effect, the authors concluded that reserpine must increase nutritional flow through capillary circulation of the fingers.

Kontos and Wasserman<sup>2</sup> utilized intra-arterial reserpine (0.5 mg injected into the right brachial artery) followed by oral reserpine (1 mg per day for a period of four to six weeks) to treat eleven patients with Raynaud's phenomenon. Two patients did not return for follow-up study. Eight of the remaining nine patients followed for one to three years showed improvement characterized by decreased frequency and severity of attacks. There was healing of ulceration in five patients who had finger-tip ulcers prior to reserpine therapy. In three patients the ulceration did not recur during the follow-up period. In the other two patients, the improvement was temporary despite continued reserpine therapy.

Willerson, *et al*,<sup>3</sup> utilized intra-arterial injections of reserpine to treat thirteen patients with Raynaud's disease and Raynaud's phenomenon. Short-term improvement of superficial flow, as measured by a heat loss measuring device, followed in seven of the thirteen patients treated.

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\*Raynaud's syndrome is a term used for convenience that encompasses both Raynaud's disease and Raynaud's phenomenon.

\*\*Raynaud's disease is characterized by absence of recognizable connective tissue disease and other obvious causes for peripheral color changes.

†Raynaud's phenomenon is characterized by symmetrical bilateral color changes in the hands after cold exposure or emotional stimuli in patients with underlying connective tissue disease.

Romeo, *et al*,<sup>4</sup> reported that eight of twelve patients with Raynaud's disease and Raynaud's phenomenon showed positive results to intra-arterial reserpine.

McFadden, *et al*,<sup>5</sup> conducted a double-blind control study in 15 patients with Raynaud's syndrome utilizing intra-arterial reserpine. Although three patients had relief of symptoms for up to three months, they concluded that intra-arterial reserpine is not an effective long-term treatment for Raynaud's syndrome.

In conclusion, our search indicates that patients with Raynaud's disease and Raynaud's phenomenon may gain at least temporary benefit by intra-arterial reserpine. No serious side effects were reported for this treatment, and patient acceptance of the procedure was good.

## References

<sup>1</sup>Tindall J: Medical uses of intra-arterial injections of reserpine. *Arch Dermatol* 110:233, 1974.

<sup>2</sup>Kontos H and Wasserman T: Effect of reserpine in Raynaud's phenomenon. *Circulation* 39:259, 1969.

<sup>3</sup>Willerson J, *et al*: Reserpine in Raynaud's disease and phenomenon — short-term response to intra-arterial injection. *Ann of Intern Med* 72:17, 1970.

<sup>4</sup>Romeo S, *et al*: Intra-arterial administration of reserpine — its use in patients with Raynaud's disease or Raynaud's phenomenon. *Arch Intern Med* 125:825, 1970.

<sup>5</sup>McFadden I, *et al*: Intra-arterial reserpine administration in Raynaud's syndrome. *Arch Intern Med* 132:526, 1973.

3. Please provide me with information concerning the use of tryptophan in treatment of depression.

Tryptophan is an amino acid which is an essential constituent of the diet. It is marketed in Europe and England for the treatment of depression but is not available commercially for this indication in the United States although available as bulk chemical. The drug is often used in conjunction with pyridoxine, as pyridoxal phosphate is a coenzyme in several metabolic reactions involving L-tryptophan. Clinical and experimental findings have led to the suggestion that in the depressive phases of manic depressive illness there is a defect in the synthesis or utilization of 5-hydroxytryptamine in the brain. The possibility of correcting this by the administration of its natural precursor L-tryptophan, which if effective would have many advantages over existing treatment in terms of safety and side effects, has prompted a series of therapeutic trials.

Coppen and co-workers<sup>1</sup> studied the antidepressive effect of tryptophan with and without the addition of a monamine-oxidase inhibitor (MAOI), and compared it with electroconvulsive therapy (ECT) in three groups of patients with severe depression. The result suggested that tryptophan was as effective as ECT in treating depressive illness. The patients given tryptophan and a MAOI tended to show a greater improvement than those treated by tryptophan alone.



Kline and Shah<sup>2</sup> studied 34 patients who were in the active depressive phase of their manic depressive illness. Seventeen patients were assigned to tryptophan treatment (3 to 6 grams daily) and the remaining seventeen were given imipramine (Tofranil®) 150 to 225 mg daily. Patients were rated at two-week intervals before, during, and after the trial for a period of six weeks. Results indicated that tryptophan was as efficacious as imipramine.

Prange, *et al.*,<sup>3</sup> conducted a double-blind, placebo-controlled crossover study in which they treated five manic patients with chlorpromazine hydrochloride (Thorazine®) followed by L-tryptophan and then five patients who received L-tryptophan first then followed by chlorpromazine hydrochloride. L-tryptophan was slightly superior to chlorpromazine in all regards as an antimanic agent. The study tended to confirm that L-tryptophan acts rapidly in mania, particularly to reduce hyperactivity. This may represent an advantage over lithium and even chlorpromazine.

Potential of MAOI by tryptophan was reported by Glassman and Platman.<sup>4</sup> In a double-blind study, twenty patients received phenazine (Nardil®) 30 mg twice daily and either placebo or L-tryptophan 12 to 18 grams daily. Despite the small number of patients, a definite tryptophan effect was observed. Six of ten subjects treated with tryptophan were discharged in three weeks compared with two of those who received phenazine alone.

Carroll, *et al.*,<sup>5</sup> studied 12 pairs of severely depressed patients and found that L-tryptophan is inferior to ECT. The two treatments were compared directly in a sequential trial. L-tryptophan was given in a dose of 7 grams daily together with 170 mg pyridoxine hydrochloride. After three weeks all 12 patients who received ECT had improved compared with only one of 12 treated with L-tryptophan.

Herrington, *et al.*,<sup>6</sup> treated 20 severely depressed patients with ECT or L-tryptophan up to 8 grams a day. Although both groups had improved significantly after two weeks, the ECT group continued to improve while the L-tryptophan group showed little further change. The authors attributed the first two weeks of improvement to non-specific factors. However, later the same author stated that L-tryptophan is as effective as imipramine and it potentiates the antidepressant effect of MAOI.<sup>7</sup>

There appear to be indications that tryptophan may be a valuable agent for treatment of depressive phase of manic patients.

#### References

<sup>1</sup>Coppen S, *et al*: Tryptophan in the treatment of depression. *Lancet* 2:1178, 1967.

<sup>2</sup>Kline N S and Shah B K: Comparable therapeutic efficacy of tryptophan and imipramine: Average therapeutic ratings versus "true" equivalence, and important difference. *Curr Ther Res* 15:484, 1973.

<sup>3</sup>Prange A J *et al*: L-tryptophan in mania. *Arch Gen Psychiatry* 30:56, 1974.

<sup>4</sup>Carroll B J: Monoamine precursors in the treatment of depression. *Clin Pharmacol Ther* 12:743, 1971.

<sup>5</sup>Carroll B J, *et al*: Sequential comparison of L-tryptophan with ECT in severe depression. *Lancet* 1:967, 1970.

<sup>6</sup>Herrington R N *et al*: Comparative trial of L-tryptophan and ECT in severe depressive illness. *Lancet* 2:731, 1974.

<sup>7</sup>Herrington R N: Tryptophan in depression. *Lancet* 2:1012, 1974.

## Mini-Residency Program

The Cooper Hospital, Camden, New Jersey, announces a new program in continuing medical education — a one-week reorientation program for former interns and residents involving in-house programs on a one-to-one relationship between the visiting residents and a house staff or attending staff physician. It is limited to one visiting resident per week and priority is given to former house staff. As openings are available, physicians who are not former Cooper Hospital house staff may be accommodated.

Live-in quarters are provided to insure continuity of follow-up in areas such as coronary care, surgical intensive care, cardiac surgery or emergency room.

Other suggested areas of activity include cardiac catheterization, nuclear medicine, radiation therapy, rehabilitation, anesthesia, operating room, respiratory care, and medical records. The program is flexible and will be adapted to individual interests. In addition, an average of more than 20 weekly conferences and lectures are available.

Satisfactory completion of the week-long program carries a maximum credit of 40 hours in Category I under the AMA and MSNJ CME programs. However, demonstrated participation beyond this amount of time also will be accredited on an hour-for-hour basis and the total will be printed on the certificate awarded at the end of each program.

A concurrent program for wives is available in nursing, medical technology, medical records, or volunteer services.

For further information please write to the Department of Medical Education, The Cooper Hospital, Camden 08103.



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# ANNOUNCEMENTS

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## Neurology-Neurosurgery Conference

The Pascack Valley Hospital in Westwood announces the following in its series on joint conferences in neurology and neurosurgery.

February 10	Determination of cerebral death
March 10	Neurosurgical clinical pathology
April 14	Epilepticus
May 12	Severe head injury — neurosurgical viewpoint
June 9	Severe head injury — medical viewpoint

Programs are held on the second Tuesday of each month from 11:30 a.m. to 12:30 p.m. and are fully accredited for category I of the AMA Physicians' Recognition Award. For further information, please write to the hospital or to Andrew L. Bender, M.D., 400 Old Hook Road, Westwood 07675.

## Pulmonary Disease Lectures

The Veterans Administration Hospital in East Orange and the New Jersey Medical School, CMDNJ are co-sponsors of a 1974-1975 series of lectures in pulmonary diseases, to be held on Wednesdays at 11:30 a.m. at the Veterans Administration Hospital, East Orange, on the dates indicated.

February 19	Chemical Control of Respiration
March 19	Cor Pulmonale
April 16	Infectiousness of Tuberculosis before and after Chemotherapy
May 14	Respiratory Failure

## Neuroscience Unit Conferences

The Neuroscience Unit of the Bergen Pines County Hospital in Paramus announces the following programs in its series of conferences. Additional programs will be listed in a later issue of *The Journal*.

Feb. 24	Viral Infections of Cerebral Nervous System
Mar. 3	Neurology-Neurosurgical Conference
Mar. 10	Neuro-Ophthalmology

Sessions are held from 11:30 a.m. to 12:30 p.m. in the auditorium at the hospital. Accreditation for Category I of the AMA Physicians'

Recognition Award is pending. For additional information, please communicate with Leonard J. Lyon, M.D., Co-director of Medical Education at Bergen Pines County Hospital Paramus 07652.

## Chest Care Conference

On February 27, from 4 to 6 p.m., at the Middlesex General Hospital in New Brunswick, the Delaware-Raritan Lung Association is sponsoring the Central New Jersey Chest Care Conference. Co-sponsor is the New Jersey Thoracic Society. Case presentations will be offered by Monroe S. Karetzky, M.D. The conference has been approved for two hours of category I AMA-CME accreditation. For additional information, please write to Linda Hummel, Program Assistant, Delaware-Raritan Lung Association, 29 Emmons Drive, Princeton, New Jersey 08540.

## CMDNJ Workshop on Health Care Teams

The College of Medicine and Dentistry of New Jersey is featuring a series of workshops for physician and nurse hospital educators to help hospitals in implementing the team approach to patient care. All workshops are held at the Rutgers Medical School in Piscataway. The schedule is as follows:

March 12 (afternoon) — Utilizing Evaluation Techniques To Improve Learning

March 18 and April 8 — Applying the Systems Approach to Hospital Education for Physicians and Nurses

The above two-part program is cosponsored by the Academy of Medicine of New Jersey, the New Jersey State Nurses Association, and the New Jersey Hospital Association. Individual tuition is \$60 for both workshops (including luncheons), or \$100 per team (one physician and one nurse).

April 24 — Organization of a Department of Continuing Medical Education in the Community Hospital

Additional information is available through the Office of Continuing Medical Education, CMDNJ, University Heights, Piscataway, New Jersey 08854.

## Current Topics in Psychiatry

The Fair Oaks Hospital in Summit announces the following programs in the 1974-1975 series on current topics in psychiatry. Dates and topics of subsequent sessions will be announced in future issues of *The Journal*.

Feb. 19	Reforms of 18th and 19th Century Mental Hospitals
Mar. 5	Psychiatry and the Law
Mar. 19	Reforms of Mental Hospitals — 20th Century
Apr. 2	Alcoholism

Sessions are held from 3 to 4:30 p.m. in the Conference Room at the Hospital (19 Prospect Street). Granville L. Jones, M.D., Director of Research and Education at Fair Oaks, will be moderator and further information is available by writing directly to him.

The programs are co-sponsored by the Academy of Medicine and are accredited for Category I of the AMA Physician's Recognition Award.

## Symposium on Contemporary Medicine and Surgery

From March 2 to 7, 1975, at the Americana Hotel in Bal Harbour, Florida, the American Society of Contemporary Medicine and Surgery will convene its annual scientific assembly for a program on "The Best of Contemporary Medicine and Surgery." Subjects to be considered include cancer, cardiovascular disease, anticoagulants, pacemakers, pain, infectious diseases, hypertension, diabetes, pulmonary disease, nutrition, cryotherapy, plastic surgery, and the involvement of the Federal government in medicine. In addition to formal presentations, there will be small group discussions with the speakers available for individual questions. The program is accredited for AMA CME Category I on an hour-for-hour basis. For further information and a complete program please write to John G. Bellows, M.D., 30 North Michigan Avenue, Chicago 60602.

## Sexual Dysfunction Workshops

A two-day workshop to teach physicians and mental health professionals how to handle the sexual problems of their patients, using concrete behavioral methods, is scheduled for April 12 and 13, 1975, at the Temple University Health

Sciences Center of the School of Medicine. The program is sponsored by the Behavior Therapy Unit of the Department of Psychiatry of the School. For additional information, please communicate with Ms. B. J. Foster, Temple Department of Psychiatry, c/o EPPI, Henry Avenue, Philadelphia 19129.

The same program, under the sponsorship of the Princeton Center for Behavior Consultation, will be presented in Atlanta — April 18 and 19; Boston — May 3 and 4; Chicago — May 10 and 11; and Miami Beach — May 16 and 17. For information on these workshops, please write to Ms. Debora Phillips, Princeton Center for Behavior Consultation, 53 Wilton Street, Princeton, New Jersey 08540.

## Surgeons To Meet in Atlanta

The Spring meeting of the American College of Surgeons will be held April 21 to 24 in Atlanta, Georgia. Designed to supplement and complement the offerings of its annual clinical congress, emphasis will be on eight formal postgraduate courses:

Fluid, Electrolyte, and Acid-Base Balance  
Gynecologic Infections  
Abdominal Trauma  
Applications of Computers for Surgeons  
Cancer of Colon and Rectum  
Trauma to the Eye and its Adnexae  
Respiratory Failure in Surgery  
Peripheral Vascular Disease

In addition, there will be general lectures, panel discussions, and symposia on such topics as: minimal breast cancer, gynecology, biliary surgery, inguinal and ventral hernias, and the thyroid.

Fellows in good standing, ACS candidates, and surgical residents and interns may register without charge. The registration fee for those whose dues have not been paid, applicants, and guest physicians is \$55; non-Fellows in fulltime Federal service may register for \$30. Registered nurses and medical students may attend the general sessions without charge. There is an additional \$40 fee for each of the postgraduate courses. For additional information, please write to S. Frank Arado, American College of Surgeons, 55 East Erie Street, Chicago 60611.

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\*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D. Double-blind study on the treatment of mentally confused patients. Reprinted from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.



# MEETINGS OF MEDICAL INTEREST

1975

Feb.

## 10 Distinguished Lectures in Surgery

17 4-5 p.m. — Martland Hospital, Newark

24 *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*

## 10 Neurology and Neurosurgery Conferences

11:30 a.m. — Pascack Valley Hospital, Westwood  
*(Sponsored by Pascack Valley Hospital and Academy of Medicine)*

## 11 Genetic Disorders

8 p.m. — White Laboratories, Schering Corporation  
*(Sponsored by New Jersey Dermatological Society and Academy of Medicine)*

## 11 1974-75 Lecture Series

18 Hunterdon State School, Clinton  
*(Sponsored by Hunterdon State School and Academy of Medicine)*

11 Pathology in Aged as Opposed to Pathology of Aging — 4-5 p.m.

11 Cardiovascular Aspects of Aging — 5-6 p.m.

18 Hemodynamic Changes Associated with Aging — 4-5 p.m.

18 Atherosclerosis — 5-6 p.m.

25 Electrocardiography and Other Diagnostic Procedures in the Aged — 4-5 p.m.

25 Gastrointestinal Changes in the Aging — 5-6 p.m.  
Martland Hospital, Newark  
*(Sponsored by Academy of Medicine)*

## 11 Utilization of Antibiotics, Part I

8:15 p.m. — Overlook Hospital, Summit  
*(Sponsored by Overlook Hospital and Academy of Medicine)*

## 12 Monthly Neuroradiology Meeting

7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
*(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)*

## 12 1974-75 Educational Seminars

9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
*(Sponsored by St. Clare's, Dover General and Riverside Hospitals, and Academy of Medicine)*

## 12 Pathogenesis and Management of Gout

2-4 p.m. — Christ Hospital, Jersey City  
*(Sponsored by Christ Hospital, AAEP, and Academy of Medicine)*

## 12 Southern New Jersey Regional Case Conferences

7:30-9:30 p.m. — Burlington County Memorial Hospital, Mount Holly  
*(Sponsored by New Jersey Thoracic Society and Academy of Medicine)*

## 12 Advances in Medicine

19 9:30-11 a.m. — Bergen Pines County Hospital,

Paramus

26 *(Sponsored by Bergen Pines County Hospital and Academy of Medicine)*

## 12 Clinical Endocrinology

19 3:30 p.m. — Martland Hospital, Newark Beth Israel, and VA Hospital, East Orange (varies)  
*(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*

## 12 Future of Allergy

## 19 Hemostasis

26 Hypercalcemia and Hyperparathyroidism  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
*(Sponsored by Middlesex General Hospital and Academy of Medicine)*

## 12 1974-75 Medical Lecture Series

19 9-11 a.m. — Riverview Hospital, Red Bank  
*(Sponsored by Riverview Hospital and Academy of Medicine)*

## 12 Clinical Interpretation of Diagnostic Laboratory Tests

19 3:30-5:30 p.m. — Rutgers Medical School, CMDNJ, Piscataway  
*(Sponsored by CMDNJ, Rutgers Medical School and Academy of Medicine)*

## 12 Distinguished Lectures in Neuroscience

19 10:30-11:30 a.m. — VA Hospital, East Orange  
*(Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)*

## 12 Post Graduate Course in Cardiology

19 10 a.m.-2:30 p.m. — St. Michael's Medical Center, Newark  
*(Sponsored by St. Michael's Medical Center and Academy of Medicine)*

## 12 Hepatic Encephalopathy

## 19 Vasculitis

## 26 Anaerobic Infections

9:30 a.m. — Bergen Pines County Hospital, Paramus  
*(Sponsored by Bergen Pines County Hospital and Academy of Medicine)*

## 13 Clinical Nephrology

20 4-5 p.m. — Martland Hospital Unit, Newark  
*(Sponsored by CMDNJ, New Jersey Medical School and Academy of Medicine)*

## 13 Continuing Medical Education Programs

6:30 p.m. — Bridgeton Hospital, Bridgeton  
*(Sponsored by Bridgeton Hospital and Academy of Medicine)*

## 13 Basic Sciences and Clinical Applications

20 3:30-4:30 p.m. — Burlington County Memorial Hospital, Mount Holly  
*(Sponsored by Burlington County Memorial Hospital and NJAFP)*

- 14 Pulmonary Asbestosis**  
8:30 a.m. — Jewish Hospital and Rehabilitation Center, Jersey City  
(Sponsored by Jewish Hospital and Rehabilitation Center and Academy of Medicine)
- 14 Antihypertensive Agents**  
2 p.m. — VA Hospital, East Orange  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and the City of Newark)
- 15 Orthopedic Surgery**  
**22** 8:30 a.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 15 Basic Science for Surgeons**  
**22** 4-5 p.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 18 Medical-Legal Aspects of Medicine and Surgery**  
11:30 a.m. — St. Mary's Hospital, Orange  
(Sponsored by Academy of Medicine)
- 18 Laboratory Interpretations**  
12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
- 19 Proper Use of Antibiotics**  
1 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 19 Hypertension**  
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights  
(Sponsored by Academy of Medicine)
- 19 Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, VA Hospital of East Orange, and Academy of Medicine)
- 19 Chemical Control of Respiration**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 19 Carcino-Embryonic Antigen**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital, AAFP, and Academy of Medicine)
- 19 Cardiology Conferences**  
4 p.m. — Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by Rutgers Medical School, CMDNJ, and Academy of Medicine)
- 20 Graduate Teaching Programs 1974-75**  
4:30-6:30 p.m. — Somerset Hospital, Somerville  
(Sponsored by Somerset Hospital and Academy of Medicine)
- 20 Chest Case Conferences**  
7:30 p.m. — Mountainside Hospital, Montclair  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 21 Gastrointestinal Bleeding**  
12 noon — Freehold Area Hospital, Freehold  
(Sponsored by Academy of Medicine)
- 21 Chemotherapy of Malignant Disease**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 22 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- 24 Slow and Latent Infections of Cerebral Nervous System**  
11:30 a.m.-12:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Hoffmann-La Roche and Bergen Pines Hospital)
- 25 Neuroscience Unit Conferences**  
11:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 25 Fundus Fluorescein Angiography and Argon Laser Photo Coagulation**  
7-10 p.m. — Englewood Men's Club  
(Sponsored by Englewood Surgical Association and Academy of Medicine)
- 26 Advances in Tuberculosis**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 27 Coronary Arteriography: Part II**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- Mar.**
- 1 Orthopedic Surgery**  
**8** 8:30 a.m. — Martland Hospital, Newark  
**15** (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)  
**22**  
**29**
- 1 Basic Science for Surgeons**  
**8** 10 a.m.-12 noon — Martland Hospital, Newark  
**15** (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)  
**22**  
**29**
- 3 Proper Use of Antibiotics**  
8 p.m. — Community Hospital, Toms River  
(Sponsored by Academy of Medicine)
- 3 Proper Use of Antibiotics**  
11:30 a.m. — Helene Fuld Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 3 Distinguished Lectures in Surgery**  
**10** 4-5 p.m. — Martland Hospital, Newark  
**17** (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)  
**24**  
**31**

- 3 **Neurology-Neurosurgical Conference**
- 10 **Neuro-Ophthalmology**  
11:30 a.m.-12:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 4 **Nutritional Aspects of Gerontology I — 4-5 p.m.**
- 4 **Nutritional Aspects in Gerontology II — 5-6 p.m.**
- 11 **Regressive Changes in Oral Cavity in Aged — 4-5 p.m.**
- 11 **Effects of Aging on Endocrine System — 5-6 p.m.**
- 18 **Reproductive Changes in Senility — 4-5 p.m.**
- 18 **Musculo-skeletal Changes and Rehabilitation in Aged — 5-6 p.m.**
- 25 **Dermatological Changes in Old Age — 4-5 p.m.**
- 25 **Developmental Changes in Renal Function — 5-6 p.m.**  
Martland Hospital, Newark  
(Sponsored by Academy of Medicine)
- 4 **Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)
- 5 **1974-75 Educational Seminars**
- 12 9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General and Riverside Hospitals, and Academy of Medicine)
- 5 **Post Graduate Course in Cardiology**  
10 a.m.-2:30 p.m. — St. Michael's Medical Center, Newark  
(Sponsored by St. Michael's Medical Center and Academy of Medicine)
- 5 **Prosthetic Valve Replacement**
- 12 **Perspectives in Medical Education in New Jersey**
- 19 **Diabetes Mellitus — after 50 Years of Insulin**
- 26 **Medical Hazards of Air Pollution**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 5 **1974-75 Medical Lecture Series**
- 12 9-11 a.m. — Riverview Hospital, Red Bank  
(Sponsored by Riverview Hospital and Academy of Medicine)
- 5 **Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 5 **Acupuncture**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 5 **Advances in Medicine**  
9:30-11 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 5 **Monthly Meeting**  
8-10 p.m. — St. Joseph's Hospital and Medical Center, Paterson  
(Sponsored by New Jersey Gastroenterological Society)
- 5 **Distinguished Lectures in Neuroscience**
- 12 10:30-11:30 a.m. — VA Hospital, East Orange
- 19 (Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)
- 5 **Clinical Endocrinology**  
12 3:30 p.m. — Martland Hospital, Newark Beth Israel, and VA Hospital, East Orange (varies)  
26 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 5 **Heart Block and Syncope**
- 12 **Renal Failure**
- 19 **Resuscitation in Shock and Trauma**
- 26 **Office Urology**  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
(Sponsored by Middlesex General Hospital and Academy of Medicine)
- 5 **Clinical Interpretation of Diagnostic Laboratory Tests**  
12 3:30-5:30 p.m. — Rutgers Medical School, Piscataway  
19 (Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)
- 26 **Care of the Critically Ill Patient-Cardiac Arrests**  
1 p.m. — Ancora Psychiatric Hospital, Hammonton  
(Sponsored by Academy of Medicine)
- 6 **Basic Sciences and Clinical Applications**  
13 3:30-4:30 p.m. — Burlington County Memorial Hospital, Mount Holly  
20 (Sponsored by Burlington County Memorial Hospital and NJAFP)
- 27 **Clinical Nephrology**  
13 4-5 p.m. — Martland Hospital Unit, Newark  
20 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 27 **Workshop on Applying Systems Approach to Hospital Education Programs for Physicians and Nurses**  
Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)
- 8 **Anesthesiology Seminar**
- 9 Cherry Hill Inn, Cherry Hill  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 10 **Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)
- 11 **Dermatologic Manifestations of Endocrine Tumors**  
8 p.m. — White Laboratories, Schering Corporation  
(Sponsored by New Jersey Dermatology Society and Academy of Medicine)
- 11 **Endotoxic Shock**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 11 **Emergency Room Medical Care**  
10:30 a.m. — North Hudson Hospital, Weehawken  
(Sponsored by Academy of Medicine)
- 11 **Utilization of Antibiotics, Part II**  
8:15 p.m. — Overlook Hospital, Summit  
(Sponsored by Overlook Hospital and Academy of Medicine)



- 12 **Multiple Sclerosis, Demyelinating Diseases**  
VA Hospital, East Orange  
(Sponsored by Academy of Medicine)
- 12 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)
- 12 **Psychotropic Medication**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital, AAFP, and Academy of Medicine)
- 12 **Workshop on Clarification of Values by Health Care Teams**
- 18 **Rutgers Medical School, CMDNJ, Piscataway**  
(Sponsored by CMDNJ)
- 13 **Continuing Medical Education Program**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of Medicine)
- 13 **Thrombophlebitis and Pulmonary Embolism**  
8 p.m. — Mount Holly Center, Mount Holly  
(Sponsored by Burlington County Medical Society and Academy of Medicine)
- 14 **Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 17 **Proper Use of Antibiotics**  
8 p.m. — Irvington General Hospital, Irvington  
(Sponsored by Academy of Medicine)
- 19 **Psychiatry; Family Therapy**  
1 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 19 **Medical-Surgical Emergencies in Psychiatric Practice**  
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights  
(Sponsored by Academy of Medicine)
- 19 **The Rights of Childhood**  
8-10 p.m. — 81 Grand Avenue, Englewood  
(New Jersey Medical Women's Association)
- 19 **Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)
- 19 **Cor Pulmonale**  
11:30-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School and Academy of Medicine)
- 19 **Chronic Anginal Syndrome**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital and Academy of Medicine)
- 20 **1974-75 Lecture Series**  
10:30 a.m. — Hunterdon State School, Clinton  
(Sponsored by Hunterdon State School and Academy of Medicine)
- 20 **Graduate Teaching Programs 1974-75**  
4:30-6:30 p.m. — Somerset Hospital, Somerville  
(Sponsored by Somerset Hospital and Academy of Medicine)
- 20 **Chest Case Conferences**  
7:30 p.m. — Overlook Hospital, Summit  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 21 **Renal Failure**  
12:15 p.m. — Zurbrugg Memorial Hospital, Riverside  
(Sponsored by Academy of Medicine)
- 21 **Fluid and Electrolyte Imbalance**  
12 noon — Freehold Area Hospital, Freehold  
(Sponsored by Academy of Medicine)
- 21 **Proper Use of Antibiotics**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 25 **Mycologic Disease Syndromes**  
11 a.m. — Perth Amboy General Hospital, Perth Amboy  
(Sponsored by Academy of Medicine)
- 25 **Renal Failure**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Warren Hospital and Academy of Medicine)
- 26 **Ventilatory Failure**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 27 **Sialography**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- 29 **Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- Apr.- 1 **Renal Function in the Aged — 4-5 p.m.**- 1 **Changes in Pulmonary Function with Age — 5-6 p.m.**- 8 **Response of Aged to Operative Stress — 4-5 p.m.**- 22 **Neurological Changes During Senility — 4-5 p.m.**- 22 **The Aging Eye — 5-6 p.m.**- 29 **Panel Presentation — Aging, Dying, Death — 4-6 p.m.**  
Martland Hospital, Newark  
(Sponsored by Academy of Medicine)
- 2 **Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 2 **Common Errors in Practice**- 9 **Medical Hypnosis**- 16 **Functional Diseases**

- 23 **Interaction of Drugs Used in Cardiac Disease**  
30 **Stroke Rehabilitation**  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
(Sponsored by Middlesex General Hospital and Academy of Medicine)
- 2 **Clinical Endocrinology**  
9 3:30 p.m. — Martland Hospital, Newark Beth  
16 Israel, and VA Hospital, East Orange (varies)  
23 (Sponsored by CMDNJ, New Jersey Medical  
30 School, and Academy of Medicine)
- 2 **Clinical Interpretations of Diagnostic Laboratory Tests**  
3:30-5:30 p.m. — Rutgers Medical School, Piscataway  
(Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)
- 2 **Monthly Meeting**  
8-10 p.m. — Newark Beth Israel Medical Center, Newark  
(Sponsored by New Jersey Gastroenterological Society and Academy of Medicine)
- 2 **Coronary Surgery Controversy**  
9 **Nutritional Anemia**  
16 **Clinical Pathology Conference**  
23 **Rheumatoid Arthritis**  
30 **Medical-Surgical-Cardiology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 2 **Proper Use of Blood Gases**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 2 **Proper Use of Blood Gases**  
2 p.m. — Cherry Hill Medical Center, Cherry Hill  
(Sponsored by Academy of Medicine)
- 2 **Distinguished Lectures in Neuroscience**  
9 10:30-11:30 a.m. — VA Hospital, East Orange  
16 (Sponsored by CMDNJ, New Jersey Medical  
23 School, VA Hospital, East Orange, and Academy  
30 of Medicine)
- 3 **Basic Sciences and Clinical Applications**  
10 3:30-4:30 p.m. — Burlington County Memorial  
17 Hospital, Mount Holly  
24 (Sponsored by Burlington County Memorial Hospital and NJAFP)
- 3 **Proper Use of Antibiotics**  
1:00 p.m. — Ancora Psychiatric Hospital, Hammonton  
(Sponsored by Academy of Medicine)
- 3 **Clinical Nephrology**  
10 4-5 p.m. — Martland Hospital Unit, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical  
24 School, and Academy of Medicine)
- 5 **Orthopedic Surgery**  
12 8:30 a.m. — Martland Hospital, Newark  
19 (Sponsored by CMDNJ, New Jersey Medical  
26 School, and Academy of Medicine)
- 5 **Basic Science for Surgeons**  
12 10 a.m.-12 noon — Martland Hospital, Newark
- 19 (Sponsored by CMDNJ, New Jersey Medical  
26 School, and Academy of Medicine)
- 7 **Distinguished Lectures in Surgery**  
14 4-5 p.m. — Martland Hospital, Newark  
21 (Sponsored by CMDNJ, New Jersey Medical  
28 School, and Academy of Medicine)
- 8 **Workshop on Applying Systems Approach to Hospital Education Programs for Physicians and Nurses**  
Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)
- 8 **Tumor Clinical Conference**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)
- 8 **Office Surgery**  
8 p.m. — White Laboratories, Schering Corporation  
(Sponsored by New Jersey Dermatology Society and Academy of Medicine)
- 8 **Gastrointestinal Bleeding**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 8 **Proper Use of Antibiotics**  
10:30 a.m. — North Hudson Hospital, Weehawken  
(Sponsored by Academy of Medicine)
- 9 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)
- 9 **Alcoholic Illness and Drug Abuse in Hudson County**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital and Academy of Medicine)
- 9 **Southern New Jersey Chest Case Conferences**  
7:30-9:30 p.m. — Cooper Hospital, Camden  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 10 **Continuing Education Programs**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of Medicine)
- 11 **Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 14 **Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)
- 15 **Newer Concepts in Hepatitis Management**  
12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
- 16 **Infertility**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey City  
(Sponsored by Academy of Medicine)

- 16 Hepatitis Management**  
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights  
(Sponsored by Academy of Medicine)
- 16 Thanatology**  
1 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 16 Tuberculosis Before and After Chemotherapy**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 18 Care of the Critically Ill Patient — Cardiac Arrests**  
12 noon — Freehold Area Hospital, Freehold  
(Sponsored by Academy of Medicine)
- 19 Annual Meeting, New Jersey Obstetrical and Gynecological Society**  
Hyatt House, Cherry Hill
- 21 Arteriography**  
11:30 a.m. — Helene Fuld Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 22 Hepatitis Management**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 22 Regional Chest Case Conferences**  
7:30 p.m. — Christ Hospital, Jersey City  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 23 Viral Hepatitis (State of the Art Conference in Nephrology)**  
1-4 p.m. — Jersey City Medical Center, Jersey City  
(Sponsored by Nephrology Society of New Jersey and Academy of Medicine)
- 23 Oral Manifestations of Systemic Disease**  
9 a.m.-4 p.m. — VA Hospital, East Orange  
(Sponsored by Academy of Medicine)
- 23 1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospitals, and Academy of Medicine)
- 24 Workshop on Clarification of Values by Health Care Teams**  
Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)
- 24 Pancreatic Scanning**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- 25 Medical Care in the Emergency Room**  
12:15 p.m. — Zurbrugg Memorial Hospital, Riverside  
(Sponsored by Academy of Medicine)
- 25 Hepatitis Management**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 26 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- 30 Advances in Use of Antibiotics**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- May**
- 1 Clinical Nephrology**  
8 4-5 p.m. — Martland Hospital Unit, Newark  
15 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 22 School, and Academy of Medicine)**  
29
- 1 Basic Sciences and Clinical Applications**  
8 3:30-4:30 p.m. — Burlington County Memorial Hospital  
15  
22 (Sponsored by Burlington County Memorial Hospital and Academy of Medicine)
- 3 Orthopedic Surgery**  
10 8:30 a.m. — Martland Hospital, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 3 Basic Science for Surgeons**  
10 10 a.m.-12 noon — Martland Hospital, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 31**
- 5 Distinguished Lectures in Surgery**  
12 4-5 p.m. — Martland Hospital, Newark  
19 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 5 Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)
- 7 Mini-dose Heparin in Surgical Patients**  
14 New Diagnostic Techniques in Gastroenterology  
21 Aggressive Treatment of Stroke  
28 Gerontology  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 7 Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 7 Fluid and Electrolyte Imbalance**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 7 Distinguished Lectures in Neuroscience**  
14 10:30-11:30 a.m. — VA Hospital, East Orange  
21 (Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)
- 28**
- 7 Clinical Interpretation of Diagnostic Laboratory Tests**  
21 3:30-5:30 p.m. — Rutgers Medical School, Piscataway  
28 (Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)



- 7 **Clinical Endocrinology**  
14 3:30 p.m. — Martland Hospital, Newark Beth  
21 Israel Medical Center, and VA Hospital, East  
28 Orange (varies)  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 7 **Minor Surgery in Office Practice**  
14 **Learning Disabilities**  
21 **Nutrition of the Aged**  
28 **Emotional Aspects of Common Medical Problems**  
9-11 a.m. — Middlesex General Hospital, New  
Brunswick  
(Sponsored by Middlesex General Hospital)
- 11 **Ischemic Heart Disease**  
8:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and  
Academy of Medicine)
- 12 **Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy  
of Medicine)
- 13 **Hepatitis Management**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 13 **Fluid and Electrolyte Imbalance**  
12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
- 13 **Proper Use of Laparoscopy**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey  
City  
(Sponsored by Academy of Medicine)
- 13 **Proper Use of Blood Gases**  
10:30 a.m. — North Hudson Hospital, Weehawken  
(Sponsored by Academy of Medicine)
- 14 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital,  
Morristown  
(Sponsored by Radiological Society of New Jersey and  
the Academy of Medicine)
- 14 **Respiratory Failure**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 14 **1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and River-  
side Hospitals, and Academy of Medicine)
- 16 **Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey  
RMP, and City of Newark)
- 19 **Proper Use of Blood Gases**  
8 p.m. — Irvington General Hospital, Irvington  
(Sponsored by Academy of Medicine)
- 21 **Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School,  
East Orange VA Hospital, and Academy of Medicine)
- 22 **Regional Chest Case Conferences**  
7:30 p.m. — The Medical Center at Princeton  
(Sponsored by New Jersey Thoracic Society, and  
Academy of Medicine)
- 23 **Continuing Education Programs**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of  
Medicine)
- 23 **Cardiology**  
8:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen County Heart Association and  
Lederle Laboratories)
- 23 **Proper Use of Blood Gases**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 27 **Psychiatry**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 28 **Annual Awards Dinner**  
6 p.m. — Chanticleer, Millburn  
(Sponsored by Academy of Medicine)
- 28 **Pulmonary Circulation**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 31 **Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of  
Medicine)
- May 31-June 3  
Annual Meeting, MSNJ  
Garden State Convention Center, Cherry Hill
- June  
3 **Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital,  
American Cancer Society, and Academy of Medicine)
- 4 **Clinical Endocrinology**  
3:30 p.m. — Martland Hospital, Newark Beth Israel  
Medical Center, and VA Hospital, East Orange (varies)  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 4 **1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and River-  
side Hospital and Academy of Medicine)
- 4 **Gastrointestinal Cancer**  
11 **House Staff Symposium**  
18 **Clinical Pathology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and  
Academy of Medicine)
- 5 **Thanatology**  
1 p.m. — Ancora Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)

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# OBITUARIES

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## Dr. Elizabeth R. Brackett

On November 7, 1974, Elizabeth R. Brackett, M.D., a well-known former practitioner from Nutley, died after a prolonged illness. Dr. Brackett was graduated from the Presbyterian Hospital School of Nursing in New York in 1915 and joined a unit of that hospital serving with the British Expeditionary Forces in France in World War I. After the war, she returned to Columbia University and earned a degree in nursing education and remained at Columbia to earn her degree in medicine from the College of Physicians and Surgeons in 1929. She interned at Newark City Hospital and followed that with a residency in pediatrics at Children's Hospital in Philadelphia. Although trained to specialize she decided to devote her career to general practice. Dr. Brackett had been on the staff at Presbyterian and Babies Hospital in Newark. She was a member of the Academy of Medicine of New Jersey, the American Medical Women's Association, whose New Jersey Branch named her "Woman of the Year" in 1962, and the American Association of University Women, who honored her in 1964 by establishing a fellowship in her name for advanced research and study in natural and physical sciences. Dr. Brackett retired in 1967 and moved to Rossmoor in Jamesburg shortly thereafter.

## Dr. Joseph P. Connolly

On November 20, 1974, Joseph P. Connolly, M.D., of Glen Rock, a member of our Passaic County component, died after a brief illness. Born in 1902, Dr. Connolly earned his doctor of medicine degree from Georgetown University Medical School in 1928 and returned to his native Paterson to establish a practice in otolaryngology and to participate in graduate work in his chosen field at New York University Medical School. He had been associated with the Paterson Eye and Ear Infirmary and with the Valley Hospital in Ridgewood, and was instrumental in establishing an audiology rehabilitation program at Bellevue Medical Center in New York.

## Dr. George J. Costa

George J. Costa, M.D., of Kearny, died suddenly at St. Francis Hospital in Jersey City on October 26, 1974. A general practitioner with offices in Jersey City, Dr. Costa was graduated from St. Louis University School of Medicine in 1939 and served with the Medical Department of the U.S. Air Force until 1946. He was a member of the attending staff at both St. Francis Hospital and the Medical Center in Jersey City.

## Dr. Benjamin E. Glass

Benjamin E. Glass, M.D., for many years a practicing surgeon in the Plainfield area, died in Paul Kimball Hospital, Lakewood, on November 15, 1974. Born at the turn of the century, Dr. Glass was graduated from the University of Virginia College of Medicine in 1923 and engaged in further studies in surgery at New York Hospital and the Mayo Clinic in Rochester. He was a Fellow of the American College of Surgeons and of the International College of Surgeons, and a member of the prestigious New Jersey Society of Surgeons. Dr. Glass was a member of the surgical department of Muhlenberg Hospital in Plainfield and served a term as chief of the medical staff. He retired to Lakewood in 1970.

## Dr. William H. Glass

One of Essex County's senior practitioners, William H. Glass, M.D., of East Orange, died on November 25, 1974, at the age of 75. A native of Florida, Dr. Glass earned his medical degree from the University of Virginia College of Medicine in 1923 and came to Essex County to establish a surgical practice there. He was a member of the attending staff at Orange Memorial Hospital, and was a Fellow of the American College of Surgeons and a member of the prestigious New Jersey Society of Surgeons. During World War II he served as Commander with the Medical Department of the U.S. Navy.

## Dr. Calvin Hahn

At the untimely age of 49, Calvin Hahn, M.D., a member of our Cumberland County component,

died on December 12, 1974. Dr. Hahn received his doctor of medicine degree from Temple University Medical School in 1948 and took a residency in obstetrics and gynecology at Einstein Medical Center, followed by graduate studies in the same field at the University of Pennsylvania Graduate School of Medicine. He established a practice in Vineland and was senior attending in the department of obstetrics and gynecology at the Newcomb Hospital there. Dr. Hahn was a diplomate in obstetrics and gynecology, and a Fellow of the American College of Obstetrics and Gynecology and of the American College of Surgeons. He was active in Society affairs and was currently a Fifth District member of MSNJ's Committee on Maternal and Infant Welfare.

#### Dr. Aaron H. Haskin

One of Essex County's senior members, Aaron Haskin, M.D., died suddenly on October 26, 1974, at Beth Israel Medical Center in Newark, following an acute myocardial infarction. A graduate of the University of Michigan School of Medicine, class of 1927, Dr. Haskin was a general practitioner in Newark all of his professional life. He had been associated with Beth Israel Medical Center and was a member of the American Association of Public Health Physicians and a Fellow of the American Public Health Association. He had been a lecturer at the Seton Hall University School of Nursing. Dr. Haskin was 71 years old at the time of his death.

#### Dr. George H. Lathrope

One of Morris County's most senior members, George H. Lathrope, M.D., died in Madison, New Jersey, on November 12, 1974, at the grand age of 96. Dr. Lathrope was graduated from Columbia University College of Physicians and Surgeons in 1904 and came to Morristown to establish a practice in internal medicine. He was board certified in his chosen field and was a Fellow of the American College of Physicians, having served as New Jersey Governor of that organization from 1939 to 1950 and Regent for the national group for many years thereafter. He held staff appointments at Dover General, Newark City, St. Barnabas in Livingston, St. Clare's in Denville, Morristown Memorial, and

All Souls (Morristown) Hospitals. Dr. Lathrope had retired some years ago to Huntington, Long Island.

#### Dr. Frederick P. Lee

Frederick P. Lee, M.D., well remembered for his innovations in the Paterson Department of Health, where he served as director for 36 years — 1923 to 1959 — died on December 3, 1974. Dr. Lee was graduated from the Long Island University College of Medicine in 1912 and did graduate work in public health at Columbia and Rutgers Universities. Before coming to New Jersey he had been health officer for the Port of New York and for his home town, New Britain, Connecticut. Under his guidance the Paterson Board of Health was given national recognition in medical circles for the progressive and pioneer public health programs carried out there, which included a requirement for the pasteurization of milk coming into Paterson, the establishment of a diphtheria prevention program, development of the first visiting nurse service and the first laboratory in the State for determination of the Rh factor, creation of mass tuberculosis and diabetes control programs, and, with the guidance of Dr. George Papanicolaou, a cytology laboratory for early diagnosis of cancer. Dr. Lee served on the State Board of Health for over two decades, including two terms as its president. From 1947 to 1957 he was a member of the Governor's Council on Public Health, and subsequently served on the Legislative Committee for the Study of the Chronically Ill. Dr. Lee was 87 years old at the time of his death.

#### Dr. Russell Maddren

Word has just been received of the death, on October 30, 1974, of Russell F. Maddren, M.D., formerly of Hackensack, where he had practiced dermatology until retirement to California in 1969. Born in 1887, he was graduated from the University of Oregon College of Medicine, class of 1917. An emeritus member of our Bergen County Medical Society, Dr. Maddren had been on the attending staff at the Hackensack Hospital, and was a member of the American Association for the Advancement of Science.



### Dr. P. Ralph McFeely

One of Bergen County's senior members, P. Ralph McFeely, M.D., died on November 25, 1974. A 1914 graduate of New York Medical College, Dr. McFeely had been a general practitioner in Bogota until retirement in 1968. Since then he devoted much time performing examinations at the Bergen Community Blood Bank in Hackensack. Formerly he had been associated with Hackensack and Holy Name Hospitals. He was active in civic affairs and had been fire surgeon and school physician, as well as a member of the Board of Health in Bogota, and school physician in Englewood Cliffs. Dr. McFeely was 83 years old at the time of his death.

### Dr. Joseph R. Schenk

On November 4, 1974, one of Union County's well-remembered internists, Joseph R. Schenk, M.D., died in Florida, where he had retired in

1971. Born in 1903 and a graduate of New York University Medical School, class of 1927, Dr. Schenk had served the people of Plainfield and Scotch Plains, where he maintained a second office, for over forty-five years. He rose to senior attending in medicine at the Muhlenberg Hospital in Plainfield, and had been director of the venereal disease clinic there.

### Dr. Anthony B. Schilling

Anthony B. Schilling, M.D., a member of our Union County component, died suddenly at St. Elizabeth Hospital in Elizabeth on October 11, 1974. A 1925 graduate of George Washington University Medical School, Dr. Schilling was a general practitioner with special interest in cardiology and had been head of the cardiology unit at the Alexian Brothers Hospital in Elizabeth for several years. He was also a member of the attending staff at St. Elizabeth Hospital. Dr. Schilling was 74 years old at the time of his death.

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## BOOK REVIEWS

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**Laboratory Techniques for the Detection of Hereditary Metabolic Disorders.** Vivian E. Shih, M.D. Cleveland, CRC Press, 1973. Pp. 125. Illustrated. (\$27)

This slim volume is crammed with important information which should be made available to every hospital laboratory. The author gives details for the performance of many screening tests for metabolic disorders; and in addition, presents pertinent interpretations of the results of such tests. Her style is concise and lucid. Methods are described for the detection of aminoacidopathies, carbohydrate disorders, organic acidurias, and mucopolysaccharidoses. In addition, the first chapter consists of a tabulation which summarizes the clinical findings in various inborn errors of metabolism. The final chapter is devoted to guidelines for a metabolic disorder screening program as used in Massachusetts.

A few of the techniques will undoubtedly be beyond the capabilities of many hospital laboratories. However, an ample bibliography after each chapter can provide further background for any laboratory that wishes to explore the more difficult techniques.

When mentioning even more specialized tests, the author wisely cautions, "when diagnostic tests are only occasionally

required, they should be performed at laboratories with a special interest in these disorders to insure reliability of the results."

In summary, this book is of great value to hospital laboratories that wish to set up the simpler screening techniques for metabolic disorders but probably will not be appropriate for the practitioner's library.

Theodore Kushnick, M.D.

**The Physiology of the Joints**, Vol. 3, Edition 2. I.A. Kapandji. New York, Langman (Churchill Livingstone), 1974. Pp. 251. Illustrated. (\$14)

This is the third volume in a set which covers the upper limb (Vol. 1) and the lower limb (Vol. 2). Its 250 pages are organized much like a laboratory manual. Half consist of full-page ink drawings, tables and charts; the facing pages contain the text. The drawings are all of excellent quality and clarity and the accompanying text is concise, clear, and to the point. The author not only clarifies the anatomy of the vertebral column and trunk but also explains and illustrates the function and interdependence of the various parts. He explains the physiology of the intervertebral disc in detail and even describes what happens when the disc becomes sick and prolapses. The author succeeds nicely in combining in one volume a description of anatomy with a description of function and even some pathology.

This work will be especially useful for medical students and students of orthopedics. It is highly recommended for anyone with an interest in the anatomy, mechanics, and functions of the trunk and vertebral column.

Peter N. Carbonara, M.D.

**Your Blood Pressure: The Most Deadly High.** Narman M. Kaplan, M.D. New York, Medcam, 1974. Pp. 198. Illustrated. (Price not stated)

This book about hypertension was written to "transmit the message" about hypertension to all people, their families and their doctors. Although the foreword is directed to patients and physicians, the content is slanted toward the layman. The material, somewhat technical, describes the entire subject of high blood pressure including the various types, natural history, treatment, future developments, contributing factors, diet, medication, and even an appendix on how to take your own blood pressure.

The last part of the book is "a patient interview with Dr. Kaplan" which gives an illustrated verbatim question and answer session between doctor and patient. This is the pithy section of the book explaining most of the earlier didactic material in an understandable fashion. Since the book was written for the layman, this last portion will help clarify the subject.

A short glossary at the end explains technical terms that are freely used by the author. However, some of the language and illustrations, including the graphics, would require a higher than average intellect for full comprehension.

This book, although carefully written, is neither flesh nor fowl in that it is too elementary for the average doctor and too technical for the layman. It probably would be a fine text for paramedical personnel in training.

Manuel J. Rowen, M.D.

**Medical Science for Medical Record Personnel.** E.T. Thompson and A.C. Hayden. Berwyn, Illinois, Physicians Record Company, 1974. Pp. 849. (Price not stated)

This text was prepared by E.T. Thompson, M.D., a retired U.S. Public Health Service officer and hospital administrator, and Adaline C. Hayden, a medical record administrator. The flyleaf states "this book is not a textbook on medicine" and I heartily agree with that. It purports to examine "the nature of living matter from . . . the cell, to the living body" and "to discuss disease in accordance with the etiological concept of disease." Unfortunately, the author of the flyleaf text let his imagination run away with him.

In reality, the book, which was written for medical record personnel, attempts to correlate a modicum of clinical, laboratory, and basic patho-physiological material with the terminology of "Standard Nomenclature of Diseases." The idea is good, but the project is so overwhelming that the explanations tend to become simplistic.

Unfortunately there are errors of fact and a tendency to confuse symptoms and signs. The section on diabetes mellitus is not well done. I do not believe "the genetic factor of the disease (diabetes) has been proved." Polyuria is a symptom, but elevated blood sugar is a sign. The authors repeat many archaic concepts which are no longer tenable.

The 30 chapters contain an overwhelming number of topics, ranging from the most simple (Diseases of the Eye: "The only function of the eye is sight or vision") to the most complex (Hemophilia due to deficiency of factor XI, plasma Thromboplastin antecedent, or antithromboplastinogenemia).

It may be valuable in a medical record library for staff personnel who want to know a little more about the diseases and operations they are coding.

A. Krosnick, M.D.

**Biochemistry of Women: Clinical Concepts.** A.S. Curry and J.V. Hewitt. Cleveland, CRC Press, 1974. Pp. 179 (\$35).

This combined effort by sixteen scientists from nine English medical centers and from Toronto and Boston fails to achieve its stated goal of relating biochemistry adequately to its clinical aspects and "monitoring treatment" through the laboratory. There are detailed explanations and descriptions of the biochemical phenomena in each of the following important areas of gynecology: the menstrual cycle, androgen metabolism, infertility, contraception, pregnancy, menopause, and cancer. However, these explanations are somewhat complicated as if geared more for the recent medical school graduate than for the practicing clinician, and the descriptions are devoid of that clarity of exposition that has characterized so many English scientific works. With the exception of one chapter on infertility, the clinical applications are meager. Approximately half of the chapters were written by scientists whose experience and training seems to have been almost exclusively in the laboratory. The two chapters on biochemical changes at the menopause and menopausal calcium metabolism should have been combined into one chapter or at least there should have been better consultation and cooperation among the three contributing authors to avoid confusion and contradiction.

Technically the book is well printed. The title and introduction suggest that it is intended for physicians who have clinical responsibility for the care of women, but the contributors presumed advanced knowledge in biochemistry and provided meager clinical applications for the most part. Undoubtedly the stated goal of the editors might have been achieved by assigning each of the principal topics to a clinician and to a laboratory-oriented scientist; such collaboration would have served to elucidate better the biochemical mechanisms and to offer practical programs for therapy.

Jerome Abrams, M.D.

**Psychiatry in Primary Care.** R.J. Codoret and L.J. King. St. Louis, Mosby, 1974. Pp. 339. (Softback — \$12.95)

A well-organized handbook which is concise in its format and practical in its approach can be invaluable to the busy clinician. The latter can use the specialty journal for an academic approach to any one topic, but the handbook is appreciated for ready reference. Here is a handbook of psychiatry specifically written for the primary-care physician. It is easy to read, printed, and soft-bound in a modern and attractive method, and packed with factual material.

The first section is devoted to a delineation of methods of gathering data. The description of psychiatric syndromes is well presented, and there is a tabulation of how to observe behavior patterns, with some clinical examples. The second section describes the specific psychiatric syndromes, and following each are some case histories. There is also a complete bibliography at the end of each chapter. The third section is devoted to treatment. There are chapters on the practical management of psychotherapy, medication, electroconvulsive therapy, and psychiatric emergencies.

This book is everything a handbook should be. The non-psychiatric physician would do well to have one on his desk.

Seymour F. Kuvin, M.D.

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1. Gertler, M. M., et al.: *Geriatrics* 25:134-148 (May) 1970.

**Indications:** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

**Possibly Effective:**

1. For the relief of symptoms associated with cerebral vascular insufficiency.
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**Dosage and Administration:** 10 to 20 mg. three or four times daily.

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**Precautions:** Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, allergy or bronchial asthma; and in those with glucose-6-phosphate dehydrogenase deficiency, where hemolysis may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

**Adverse Reactions:** All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus,

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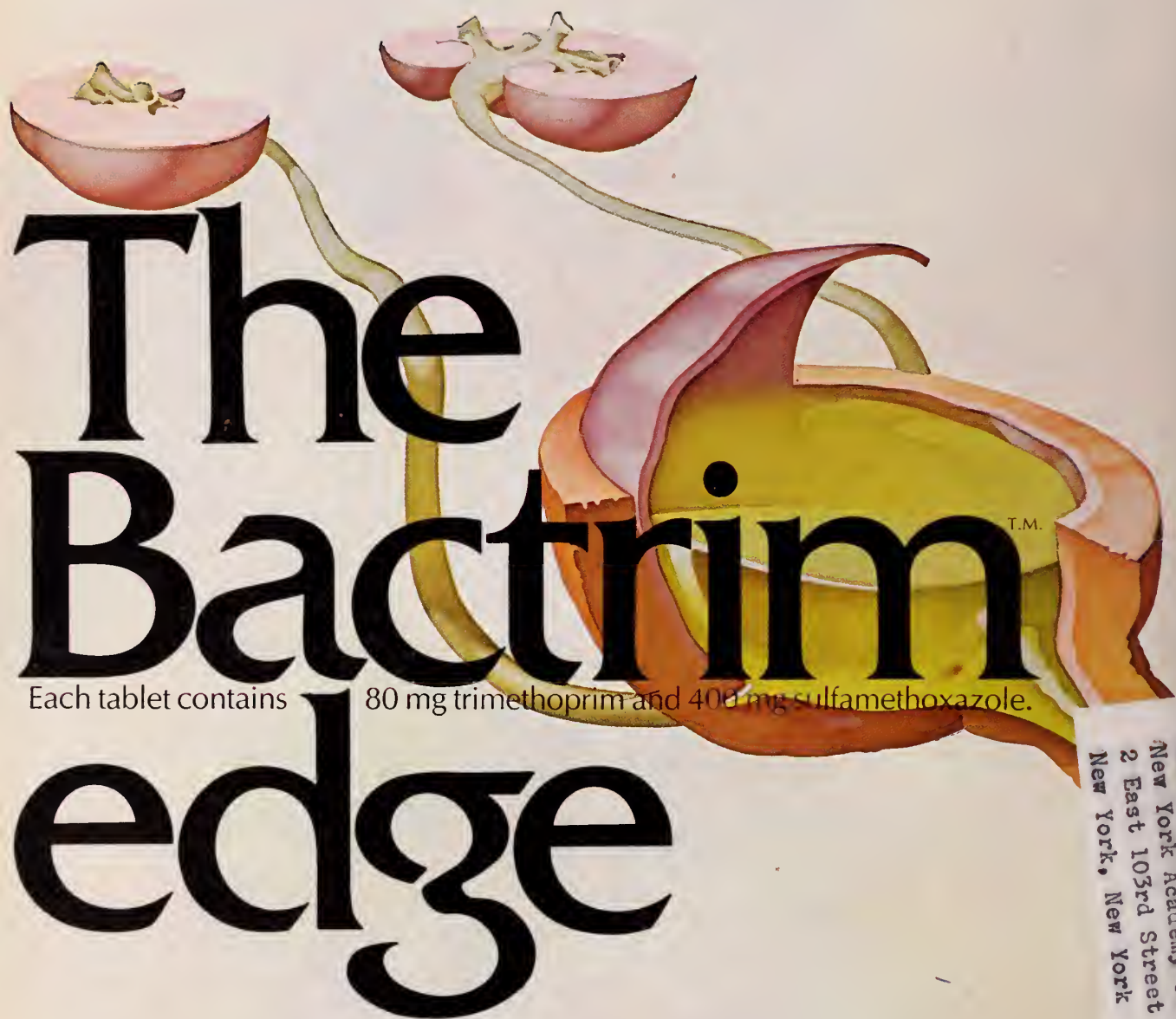


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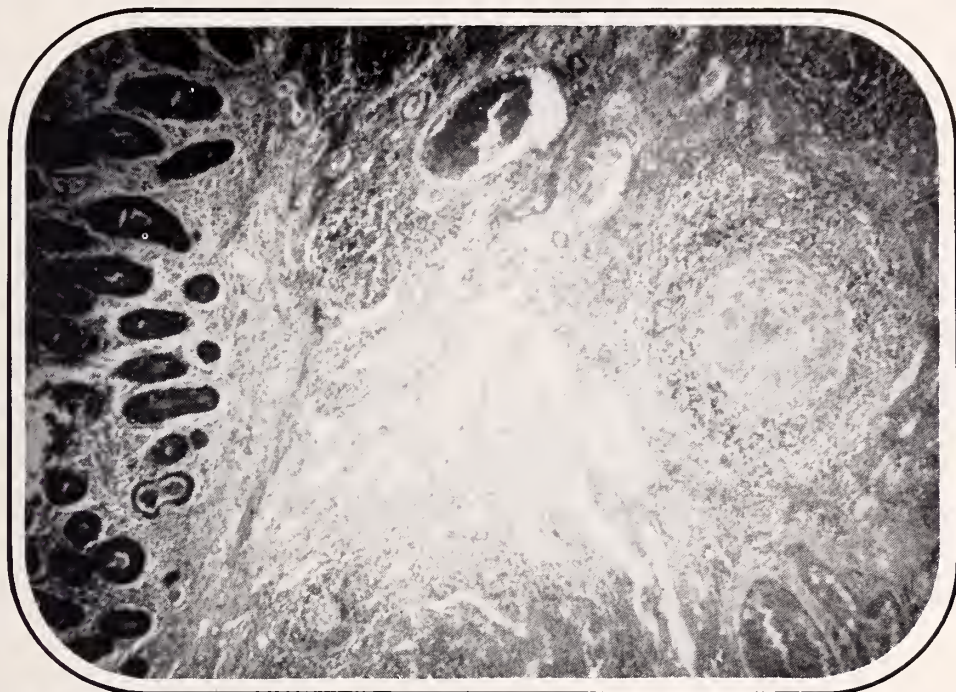
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**Physical and Psychological Dependence:** Physical and psychological dependence have occurred. Prescribe cautiously for patients known to take excessive quantities of drugs. Limit repeated prescriptions without adequate medical supervision. Withdrawal symptoms include nausea, abdominal discomfort, tremors, convulsions, and delirium. Newborn infants of mothers dependent on glutethimide may also exhibit withdrawal symptoms. In the presence of dependence, dosage should be reduced gradually.

**Pregnancy:** Use of any drug in pregnancy or lactation requires weighing potential benefits against hazards.

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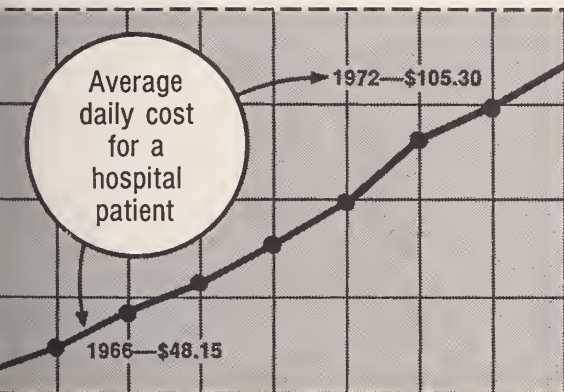


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# EDITORIALS

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## Smoking: Is Our House in Order?

In a recent issue of *JAMA* (230:11, December 16, 1974), an editorial ("The New Seduction") and a commentary ("Government-subsidized Death and Disability") took the U.S. government—"our government is responsible for programs that foster death, disability, and increasing health care costs"—and the public relations hucksters—"advertising seduces unsophisticated kids into acquiring habits that can kill"—to task. I do not disagree with the premises and statements in either, but I question whether our own house is in order.

A decade after the Surgeon General's report on smoking and health still finds many hospitals and other health facilities mindlessly selling tobacco products to patients and visitors from dispensing machines, carts which are rolled to the patients' rooms, and snack and gift shops on hospital premises. Free-smoking privileges are routine in all patient-rooms except those in which oxygen is in use, or in intensive care units. Visitors smoke without limit while paying condolence to patients with chronic obstructive lung disease, coronary heart disease, and lung cancer.

Lambasting the "government" is a semi-futile exercise, which in itself is a form of reverse advertising. Action speaks louder than words (sometimes) and we in the health professions can *act* on this issue today.

Smoking by patients, professional and sub-professional personnel, and visitors should be forbidden immediately in all patient areas. Like the airlines, limited "smoking" areas can be set aside to keep the addicts off the walls. Tobacco products should not be sold on the premises under any circumstances. No smoking should be permitted at conferences or meetings on hospital property.

We physicians are still not setting the best exam-

ple despite the marked general reduction in the use of tobacco by the medical profession. Boards of trustees and administrative staffs should be pressured into establishing proper restrictive regulations. Can we criticize the government, the business world, and the media when we have not done the job ourselves? A.K.

## The Pediatric Nurse Practitioner

Old ways die hard. There are many areas in our state where patients are having difficulty in finding primary care for their children. There is a well-known shortage of primary care physicians (especially pediatricians). There are convincing data that pediatric nurse practitioners (PNPs) can provide high quality primary care, under physician supervision. There are two training programs for PNPs in New Jersey (Seton Hall College of Nursing—CMDNJ, New Jersey Medical School; Rutgers School of Nursing — CMDNJ, Rutgers Medical School). Despite all this, there has been only minimal effort by the pediatricians of New Jersey and medical planners to make use of PNPs in providing primary care.

All sorts of excuses can be heard ranging from the unfounded fear that nursing wants to take over medicine, to the rationalization that patients will not accept PNPs. Although occasional contrary examples can be cited, the overwhelming evidence is that PNPs are accepted and do their job well, and are not interested in being independent. Other strong evidence supports the facts that they are able to reduce the cost of medical care, but pose no economic threat to the physician provider.

Why is there resistance? Perhaps because it is always easier to continue to do the same thing than to begin new things. Perhaps because the primary care physician sees the PNP more a threat to his ego than anything else.

Pediatric primary care is a challenging specialty. Many pediatricians are too busy and wish they had more time to deal with the more complex



problems uncovered in their primary care practice. The PNP provides the opportunity for the pediatrician to do what he has been saying he wishes to do.

In a recent article in *Lancet*,<sup>1</sup> the entire subject is reviewed and placed in the context of a general reorganization of primary care services. The arguments are cogent. Lest someone outside of the medical profession legislate this reorganization, the primary care physician needs to look at what he does, carefully, now.

Richard H. Rapkin M.D.

## Quality Control Versus Cost Control

The struggle between quality control and cost control is beautifully exemplified by hospital medical records. In days past, physicians wrote histories, physical examinations, progress notes, operation notes, and discharge summaries. To the chagrin of many a reader, handwriting was often difficult to decipher, or literally illegible. Scrutiny of such records by third-party payers, lawyers, and others led to complaints which fell on deaf ears until peer review was introduced.

Tissue committees, departmental mortality and morbidity meetings and hospital accreditation investigations were hampered by the problem. Later, the need for improvement in the quality of medical records was echoed by utilization review teams and others. To enhance the clarity of records, hospitals did the logical thing — they acquired dictation equipment and encouraged its use. The initial expenditure for an individual dictating and transcribing machine or two was low and some records improved.

The idea then caught on, however, and many physicians began to utilize the dictation method. The result was the need for more and better

equipment; complete dictation systems with stations throughout the hospital were built at considerable expense. Naturally, this made dictation easier, so physicians turned to this method for all their major recorded input and the ballpoint pen was threatened with obsolescence. Presto, good quality records were available!

But wait! What about cost? Of course the costs of medical records skyrocketed. At first, record room librarians hired additional typists to transcribe the dictation, but even they could not keep up with the workload. At this point, contracts were signed with medical secretarial services to do some of the transcribing on a unit basis at rates of 5 to 10 cents a line. Photocopies or carbon copies are additional. A typical 400-bed community hospital medical record room spent nothing for such services prior to 1967. That year, the cost was less than \$1000; by 1973, the cost was just under \$24,000, and this year the financial outlay will exceed \$32,000.

Thus, we come to the inevitable conclusion, which is certainly not new, that good quality costs money. The contest between cost control and quality control will go on in medicine, and in other spheres of life, through no fault of the physician. Safety costs money; as the auto and aviation industries know. Pollution control costs money. At the risk of causing the reader a wave of nausea, it is necessary to say "you get what you pay for."

Despite the logic of inevitability, physicians can do something to help contain costs. Make your dictation of medical records complete, but concise. If one word will do, don't use three. Don't be repetitious! Every word and sentence cost money in hospital medical records, as well as in journal articles (and editorials).

A.K.

### Annual Meeting

May 31-June 3

Cherry Hill

<sup>1</sup>Bicknell WJ, Wash DC, and Tanner MM: Substantial or decorative? Physicians assistants and nurse practitioners in the U.S. *Lancet* 2:1241 (1974)

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# ORIGINAL ARTICLES

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*The physiatrist is initially a consultant in preventive medicine. Once the acute phase is ended, he assumes the leading medical role and heads the team that can lead these severely disabled patients back to the highest level of self care and employability possible. This team effort should be carried out in a rehabilitation center without the mobility restrictions of an acute general hospital. All components, that is, physician, rehabilitation team, the family, and the community, must be coordinated to achieve the best clinical, emotional, and functional end result.*

## Role of the Physiatrist in the Care and Treatment of the Spinal Cord Injured Patient\*

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**Richard A. Sullivan, M.D.**  
**West Orange**

The care and treatment of the spinal cord injured patient is both complex and multidisciplinary, and involves the specific expertise of most of our present-day specialty groups. This paper will stress the roll of the physiatrist, the specialist in rehabilitation medicine, in this effort.

Specialized care of these patients can be divided into two specific phases. The first is the acute, which comprises in the average case the first two to three weeks of care. The second is the rehabilitative, and this comprises the next several months, the vast majority of the recovery and treatment time.

### The Acute Phase

This phase begins at the site of injury and continues during the transportation of the patient to the hospital, in the emergency room of the general hospital, and during the first two to three weeks of acute hospital care. The proper management by a trained rescue squad, at the site of injury and during the transportation of the patient to the emergency room, can be life saving. Careful handling by emergency room personnel, as well as x-ray and nursing personnel at the hospital, is also vital to the patient's chances for survival and the prevention of further injury.

Initial hospital care may involve neurosurgery and/or immobilization in traction; once the treatment plan is made, it is usually provided in the intensive care unit of the hospital. The

physiatrist, who is experienced in spinal cord injury, can be involved in these vital early decisions, but the final decision is made by the neurosurgeon. Assistance in the acute care is also provided by the anesthesiologist, urologist, internist, and orthopedic surgeon, all of whom are involved in a massive life-saving effort. Every effort is made to maintain and, if possible, decrease the extent of injury and paralysis, at the same time averting further injury or increased paralysis by proper comprehensive management.

The major role of the physiatrist in the early acute stage is secondary and consultative. He prescribes the early range of motion exercises, which are carried out by the physical therapist; the need for protection of joints is stressed and appropriate splints prescribed. Under his direction, the rehabilitation team social worker and psychologist are brought into the case when needed to assess and advise in the early social and psychological needs of the patient and his family.

Rehabilitation nursing techniques can also be reviewed with the ward nursing staff to assure that specialized beds and frames are available and their use understood. The need for meticulous skin care, by frequent turning of the bed patient, must be understood and carried out.

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\*Read before the Section on Physical Medicine and Rehabilitation, 208th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 13, 1974. Dr. Sullivan is Medical Director of Kessler Institute of Rehabilitation at West Orange, New Jersey.

Management of urological problems can also be monitored, in association with the urologist and the urological nursing staff. This should also include consideration of intermittent catheterization, proper catheterization techniques and irrigations.

The primary role of the physiatrist as a consultant at this stage of care is prevention — prevention of contractures, decubitus ulcers, and unnecessary urological complications. The physiatrist may act as a coordinating physician, if the primary physician so desires, and assist in the decisions of early medical and surgical management. He can direct the support of the rehabilitation team to the early needs of the patient and his or her family.

### The Rehabilitation Phase

Once the patient's condition has stabilized, with the diagnostic procedures and early medical and surgical treatment completed, the patient enters the rehabilitative phase of his recovery. At this point, the patient is transferred out of the intensive care unit to a general ward of the acute hospital or to a rehabilitation center. This occurs after the first 10 to 14 days, the exact time depending on the severity of the initial illness, the medical complications during the recovery, and the type and healing of fractures. Once the transfer is made, the physiatrist assumes the role of primary physician with the direct management of the patient's medical care and the leadership of the rehabilitation team of medical and paramedical specialists. This includes daily medical rounds with the nursing supervisor to monitor patient needs and to assess his ability to undergo increasingly intensive therapeutic measures. In addition to routine medical management, supervision is provided for treatment of decubitus ulcers and the neurogenic bladder. Prevention, which requires strict staff routines and discipline, is the rule.

The monitoring of fracture healing and its protection during the healing phase by means of the proper stabilization braces is a major responsibility. For example, the four poster brace is often used in cervical spine fractures following the stabilization period in tongs; for thoracic compression fractures either the Jewett or the Knight-Taylor brace is used. In more com-

plicated cases, the decision as to the optimal time for brace removal is made by the physiatrist in conjunction with the orthopedic and neurosurgical consultants, if necessary. The intensity of exercise must be tailored to the status of the fracture and its inherent stability in the protective or stabilization brace.

The physiatrist treats acute infections as well as the more frequently seen pulmonary, urinary, or vascular complications. Narcotic medications, necessary for the compassionate treatment of pain, must be provided judiciously, to avoid addiction. The patient must be protected from thrombophlebitis and pulmonary embolization and prompt treatment provided should they occur.

Physical medicine in a rehabilitation center is team medicine at its best. This team consists of the physiatrist and his consultant physicians, rehabilitation and urology nurses, physical therapist, occupational therapist, activities of daily living (A.D.L.) therapist, psychologist, social worker, orthotist, and vocational counselor. The work of these professionals is coordinated under the guidance and prescription of the physiatrist. As the physical condition and functional ability of the patient is improved, the psycho-emotional problems are evaluated and treated by the psychologist and the family-social-community problems are handled by the social worker.

Braces and wheelchair are prescribed by the physiatrist and arranged by the orthotist. Equipment for home to ease the burden of nursing care of the family or to allow patient independence is also individually prescribed. Training in the use of equipment is provided to the patient and his family by the A.D.L. therapists.

Devices as simple as a short leg brace or as complicated as a battery-operated tenodesis orthosis are individually prescribed by the physiatrist, who also supervises the training in their usage. Occupational therapists provide the training in use of orthotic devices. One of the least understood pieces of apparatus is the wheelchair, which is composed of many individual parts, each of which should be individually prescribed for a patient to allow him the greatest in-



dependence. It is a complicated prescription item and should be ordered with care.

Counseling the spinal-injured patient about sexual activity is another important topic for the physiatrist and the psychologist. Whether married or single, this is an area of vital concern to the patient and the source of anxiety, misunderstanding, frustration and depression; it is of equal concern to the spouse. Proper management of these concerns and appropriate counseling of both parties can ease the tensions and inhibitions and result in a better mutual understanding of the problem. Prevention is of prime importance to avoid major psychological problems.

Most spinal-cord injured patients have lost voluntary control of bowel and bladder. A system of suppository-induced, scheduled bowel evacuations solve, for the most part, the problem of the embarrassment of unexpected bowel movements, which can interfere with the patient's ability to function in society. Urinary incontinence is easily handled in male patients, once bladder spasticity is achieved; through the use of external drainage devices attached to the penis, urine expelled by the bladder spasm is collected. The female continues to require catheterization as a general rule; there are some exceptions, however, where a form of control through scheduled voidings is achieved. Both male and female patients with flaccid bladders are now treated with intermittent catheterization techniques. A trained urology nursing service is available at the rehabilitation center to teach the family and the patients themselves proper aseptic catheterization and other techniques. The urology nurse also monitors the care and treatment of the neurogenic bladder, including catheter care, drainage procedures and prevention of infection. She also performs such basic testing procedures as cystometric analyses of the neurogenic bladder.

The ultimate end of any rehabilitation program is as high a level of self care and functional independence as is possible despite significant residual disability. This includes re-entry into the work force or return to function as a homemaker. The vocational counselor, along with the physiatrist and his team, attempts to

find a reasonable vocational goal within the parameters of the patient's permanent disability.

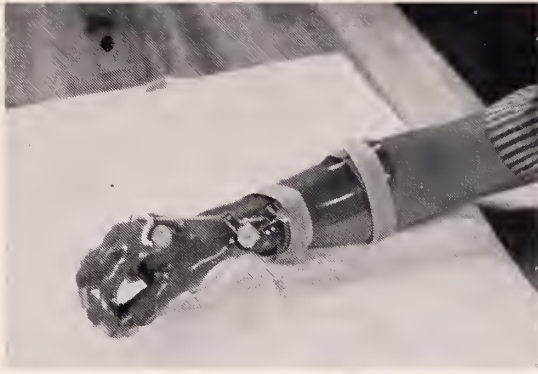
### The Rehabilitation Center

The physiatrist can provide the most optimal program of care in a rehabilitation center setting, which stresses the treatment of the spinal-cord injured patient in a dynamic environment geared for recovery. The patient should be dressed as soon as is feasible and provided with an independent means of mobilization about the center. The hospital room should be used for the night's sleep and for decreasing periods of daytime rest, as the strength and well-being of the patient increases. His day should be increasingly busy with concentration on physical strengthening and productive activities to improve and develop the optimum of self-care. Exercises in the therapeutic arenas should gradually progress from increasing the strength of the patient to increasing his functional ability to overcome the residuals of his disabilities. Independent transfers to and from the wheelchair, independent toileting, dressing, bowel and bladder management, wheelchair management, driving with or without hand control devices, (Figure 1), instruction in the management and functional use of dynamic splints and devices, (Figures 2 and 3), and ambulation training with braces and crutches is also taught where physically possible.

The center should have available to it the latest self-help devices, such as the "puff and sip" apparatus, which provides a greater degree of independence to the more severely involved



Figure 1 — Special driver education programs using hand controls are provided for the paraplegic and quadriplegic patients.



*Figure 2 — A flexor driven tenodesis hand splint improves the functional capacity of a paralyzed hand.*



*Figure 4 — A voice-operated system of telephone dialing allowing independence in telephoning for the totally disabled.*

quadriplegic patient by allowing him to activate his own wheelchair. (Figure 4) New and innovative devices, such as the voice-operated telephone now under development by the Bell System, (Figure 5), sophisticated motorized tenodesis orthoses, and other specialized devices must also be available in the center to be

provided and prescribed for each patient individually by the physiatrist. Research and development of such techniques is under the direction and supervision of the physiatrist.

The rehabilitation center must be a center of positive thinking, stressing the patient's residual



*Figure 3 — Writing is once again possible with the tenodesis splint after training in use.*



*Figure 5 — Independent wheelchair propulsion in a totally paralyzed patient by means of a breath-operated system. This system can also be applied to other necessary appliances and provide independent operation.*



ability rather than his residual disability. Counseling and post-hospital home and vocational planning must be realistic and must involve the patient, his physician, and the patient's family, as well as his neighborhood and home environment, his educational background, and his place of employment. The concept that disability can be increased by architectural and environmental stumbling blocks and eased by better environmental planning must be stressed. Follow-up outpatient urological and general medical care and supervision is also provided.

The physiatrist, as the physician in charge, must instill this positive philosophy into a multidisciplinary staff and maintain it in spite of the enormous physical incapacities that must be treated. The problems faced are not always easy to solve because of the significant residual disability especially in the higher level quadriparetics. The results produced by such team efforts are amazing if goals are realistic and there is understanding on the part of the patient's family, community, schools and universities, employers and fellow employees.

Pleasant Valley Way

### National Conference On Child Abuse\*

During June 7 to 9, 1973, a National Conference on Child Abuse was held in Washington, D.C. The purpose of the conference was to consider:

1. Improving definitions
2. Pending and proposed legislation
3. Methods of early prevention and rehabilitation
4. Educational programs
5. Research strategies

Workshops were developed in each of these areas and reports presented.

Two definitions were developed. For reporting purposes, identification was defined as, "A child, under the age of 18, who was suffering from physical injury inflicted upon him by other than accidental means, or sexual abuse, or malnutrition, or suffering physical or emotional harm or substantial risk thereof by reason of neglect." For service needs, the definition was stated as, "The child on whose behalf services should be given is one with or without an inflicted injury whose physical or emotional well being is threatened."

In order to legislate appropriately, it was felt that, "... the approach to a family involved in child abuse must be non-judgmental and non-punitive, and should be characterized by con-

structive, multi-disciplinary action." Legislation should encompass reporting ("... all persons to report all forms of suspected child abuse and neglect."), investigation (should be on a 24-hour day basis), followup (should include protection of other children and should be geared to the family unit), judicial process (should include abrogation of privileged communications, the need for provision of guardians, and the adequate training of judges), coordination (inter- and intrastate), and development of demonstration programs. In addition there was recommendation for the establishment of a National Center for Child Abuse.

The workshop on prevention and rehabilitation stated that this should be multidisciplinary and comprehensive, including provision for crisis intervention and extended services and rehabilitation. There should be development of local and regional centers for the provision of services, and specific programs for prevention, involving family life education courses in schools, and identification of high-risk parents or families.

*(continued on page 199)*

\*National Conference on Child Abuse: A Summary Report, 1973. National Institute of Mental Health, 5600 Fishers Lane, Rockville, Maryland 20852 (1974)



*Rapid death in ambulatory cardiacs usually occurs before they can reach the hospital. Prodromata, signs, and symptoms of 91 patients with known arteriosclerotic heart disease were analyzed over a period of 12 months to ascertain if there were any clues that would individualize those who would become ill and/or die from their heart disease. Six died whereas 16 survived cardiac episodes, but each group was observed and treated in a similar fashion. It was concluded that there were no techniques that could anticipate the acute course at its inception.*

## Death and Prodromata in Ambulatory Cardiacs

**Manuel J. Rowen, M.D./Elizabeth\***

At least 50 percent, possibly more, of all acute heart attack victims die before medical help is available.<sup>1,2,3,4</sup> People die swiftly in the streets, at home, at work, or at play in appalling numbers in what is apparently a modern-day epidemic. In spite of the advanced state of knowledge in the treatment of acute myocardial infarction, the majority of victims don't stay alive long enough to benefit from this expertise. Although the problem has been adequately delineated, the solution is as remote as ever.<sup>5,6,7</sup> Many recommendations and studies have failed to improve this dismal picture.

The fact that 65 percent of patients with acute myocardial infarction have significant symptoms of heart disease during the month prior to the attack and one-third of patients dying suddenly had seen a medical doctor within two days does not pinpoint the individual patient, but rather the group in which he belongs. This is of only marginal help to most doctors or patients.

The primary medical physician is on the "firing line" of this endless struggle. He is called when the real thing happens, but receives many more calls from anxious people who have symptoms but no cardiac disease. This dilemma occurs day after day, without respite.

### Methodology

In order to analyze this problem more clearly, I prepared a study in my practice to tabulate the signs, symptoms, and prodromata of a select group of cardiac patients, some of whom would die within the year. Since these people were

thoroughly known to me, their demise might be preceded by certain clues that could be valuable for the future use of the remaining patients.

The study involved 91 patients over a 12-month period of observation. The patients were selected consecutively from my ambulatory practice to include all those who had suffered at least one proven myocardial infarction or had classical angina pectoris (New York Heart Association). The patients were seen frequently according to a routine of visits or in response to symptoms. The usual patient visited the office monthly or bimonthly although some came in only twice a year. Each office visit included a physical examination with blood pressure, weight, temperature, pulse, respirations, and special attention to the heart, lungs, abdomen, and extremities. Electrocardiograms, chest x-rays, and blood studies were done when indicated. A questionnaire was completed at each visit to include answers for the following signs or symptoms:

- (1) Episodes of palpitation
- (2) Increased fatigability
- (3) Unusual severe weakness
- (4) Sudden sweats from no apparent cause
- (5) Onset of dyspnea or increasing dyspnea
- (6) Paroxysmal nocturnal dyspnea
- (7) Nausea or vomiting without obvious cause
- (8) Increasing or refractory angina
- (9) A typical chest pain lasting more than a minute
- (10) Any new or unusual symptoms

If the patient answered yes to any of the questions, he was asked to describe the incident, how long it lasted, what he did about it (such

\*Dr. Rowen is Assistant Clinical Professor, New Jersey College of Medicine, CMDNJ.

as treatment, rest, behavior, call the doctor, go to the emergency room, and so on) and finally how things returned to the pre-existing state.

Those patients who were hospitalized for cardiovascular disease or those who died were carefully evaluated as to prodromal symptoms, active complaints, hospital course, and all other pertinent information.

The group of 91 patients consisted of 64 males and 27 females with an age range from 38 to 82 years. The majority fell in the 55 to 70 year group. Most of them had one or more associated diseases such as hypertension, diabetes, cholecystitis, and osteoarthritis. There were a few who smoked cigarettes currently. Cholesterol measurements fell in the usual expected levels for a group such as this, skewing toward the high levels.

## Results

*Symptoms*—The presence of symptoms in this select population of 91 patients was very great. Most people had complaints, which they presented willingly at every visit, while a small segment of people claimed to be asymptomatic, a manifestation of denial by some. In general, the more advanced the heart disease, the greater the number of symptoms. This is in keeping with Scandinavian studies.<sup>8,9</sup> The general symptoms intermingled with emotional problems so that each had to be evaluated in light of the past history as well as the objective findings. It is easy to see how a new observer could be led astray by the recitation of complaints, if he had no prior knowledge of the case, or how the primary physician may become complacent, with dire consequences.

It became obvious that chest pain, dyspnea, fatigue, weakness, and angina had an individual pattern in each patient, who learned to manipulate and live with his symptoms. Some symptoms were triggered by emotions, while others resulted from food, work loads, and environmental climate. Part of the adjustment to this pain is familiarity. Each patient had his own credo for living with the threat of sudden death.

The commonest complaint by far was chest pain, of all varieties, degrees, location, and description. One could never be certain that it was always cardiac pain although to the patient, it usually is. The patient, unless seen immediately by a doctor, used rest and nitroglycerin to relieve the discomfort. Occasionally, a patient would describe an attack of chest pain, sweating, weakness, and pallor that was almost diagnostic for acute coronary insufficiency or myocardial infarction which they self-treated. By the time they came to the office, days or weeks later, there were no residual signs, symptoms, laboratory, or electrocardiographic evidence. This type of patient-neglect is not unusual, but one cannot conclude with certainty that the person had really suffered a heart attack. Chest pain is a fact of life for most cardiac patients with advanced coronary artery disease, so they don't panic with each pain.

*Hospitalization*—There were 16 patients hospitalized for acute cardiac episodes for a total of 22 incidents; they all survived.

The survival group that was hospitalized consisted of a large number of people who had increasing or intermittent symptoms which didn't disappear within 12 hours or even days. A smaller group of patients who had a sudden onset of symptoms (one on the golf course and one in bed) summoned and received help within two hours. Crescendo symptoms or sudden unusual chest distress was rare but, when present, was evidence of a serious problem. Patients were hospitalized on the basis of clinical acumen, electrocardiogram evidence, and other modalities of present-day medicine. Some people were probably hospitalized unnecessarily because of overdiagnosis of cardiac disease.

There were an additional 6 patients who died, three in the hospital and three were dead on arrival. Among those who were dead on arrival, one delayed going to the hospital for two hours, while the other two were found dead minutes or hours after the event. The latter two had died so suddenly that they were unable to summon help, which was in the

house. Of the three patients who died in the hospital, in spite of optimal intensive care therapy, one expired within 12 hours and the other two within two days.

The deaths in this series require special evaluation to discover any prodromata or other clues which may have been present prior to the acute episode. Could life have been preserved using the tools available in the community hospital or emergency medical facilities?

## Deaths—Case Reports

A 58-year-old male suffered his first acute myocardial infarction in 1968 after which he developed heart failure and angina pectoris. He was classified III D, retired from active work, and was declared totally disabled by the New Jersey Disability Service. He did chores about the house, assisted his wife in a candy shop, and led a normal social life including parties, visiting, driving the car, and puttering in the garden.

On one occasion, following a wedding where he drank too much alcohol, he was brought home vomiting, weak, and sweating. Although the family wanted medical attention, the patient refused all help. The next morning he was up and about, none the worse from the night before.

On the day of his death he noted chest pain at 6:45 p.m. and called the doctor; he was advised to enter the hospital unless the pain subsided quickly. At 7:10 p.m., it was decided to hospitalize the patient. He was transported by ambulance, arriving by 7:45 p.m. Treatment was started at 7:50 p.m. and the patient was comfortable in the Cardiac Care Unit by 8:45 p.m. Within six hours he was dead from apparent heart failure.

There were no complaints or prodromata prior to the acute onset to herald this last massive attack.

A 76-year-old female suffered from angina pectoris due to arteriosclerotic heart disease. She had been classified III D for at least ten years, but had never had a documented myocardial infarction. The patient was seen almost monthly because of recurrent symptoms, but her problem was complicated by generalized osteoarthritis, chronic cholecystitis, adult-onset diabetes mellitus, as well as chronic anxiety and depression. She received active therapy for all of these diseases, however, symptoms were daily, severe, and difficult to treat. She used nitroglycerin freely and this did give her relief.

On May 4, 1972, she was seen at home because of the gradual onset, over a few hours, of weakness, sweating, and chest pain that was unresponsive to nitroglycerin. The patient appeared sicker than usual so she was taken to the hospital against her will. She was treated in the Intensive Care Unit but failed to respond to treatment and died of heart failure after 12 hours.

A 61-year-old male suffered from hypertensive cardiovascular heart disease, heart failure, angina pectoris, and severe coronary insufficiency. He also had diabetes and pleural effusions and had had at least three well-

documented acute myocardial infarctions. He was classified III D. He was fully retired, but was unable to fish because he couldn't pull in the catch when he hooked them.

He usually denied most symptoms although severe dyspnea could be noted when he talked. At this time he was classified as IV D. Hospitalization was required twice in the months prior to his death, but improvement was fleeting.

He died at home, while at partial bedrest, about two weeks after discharge from the hospital. Death probably occurred so rapidly that he was not able to use the phone at his bedside, although he may have delayed because of fear of rehospitalization.

A 69-year-old male had documented acute myocardial infarctions, the last one about two months prior to his death. He also had moderate angina pectoris, congestive heart failure, and mild diabetes mellitus. The patient was seen irregularly in the office, but complained of chest pain, palpitations, weakness, and easy fatigue each time. Nevertheless, he did small chores in the house and yard, both winter and summer, in spite of far advanced arteriosclerotic heart disease, Class III D.

He was hospitalized in April 1972, for acute coronary insufficiency, and convalesced at home. Death occurred suddenly in July 1972 in the presence of his wife. Although the emergency squad arrived within 15 minutes of her call the patient was dead. There had been no change in activity or symptoms immediately prior to death as witnessed by his wife.

A 60-year-old male suffered from hypertensive cardiovascular heart disease, class III C, for at least two years. He had angina pectoris and had two confirmed acute myocardial infarctions, the last one in 1971. He also had diabetes mellitus, which was treated with tolbutamide, and was a moderate smoker. At monthly office visits he usually complained of angina, weakness, sweating with slight activity, and occasional bouts of chest pain which lasted 2 hours. He treated himself with nitroglycerin and rest, which seemed to clear his symptoms.

On February 22, 1973, he was awakened at 5 a.m. with chest pain, but waited until 7 a.m. to summon help. An ambulance arrived at 7:30 a.m. but the patient had collapsed 15 minutes earlier and could not be revived.

Although his normal complaints waxed and waned for years, they reached a crescendo on the day of the event for which he summoned help. According to his wife he was neither better or worse during the days and weeks before death.

A 76-year-old male suffered an acute myocardial infarction in 1968, after which he had frequent angina pectoris. He had hypertensive cardiovascular disease, Class III C. He also had occasional bouts of weakness, which like his angina, were relieved by vasodilators or rest. He was also in mild heart failure most of the time.

When seen in April, he had no change in behavior or symptoms, but on May 29, he experienced increased weakness, vertigo, and dyspnea without pain. He was brought to the Intensive Care Unit and treated until he died on May 31, from a combination of cardiac and cerebral complications.

The patient was a careful man, fully aware of his



disease and attended by an alert wife. He had no appreciable new complaints or signs until his final trouble started.

Analysis of the data of these deaths would confirm that the patients in the first two and the last case received maximum treatment although only the first was transported and treated within a few hours.

Patient three might have fared better had he been in the hospital at the time, but one would have had to monitor him indefinitely since he was a far-advanced, class IV cardiac patient. This concept is unworkable under our present conditions of hospital care.

Patient four died within minutes of his acute episode, an impossible sequence to prevent. There had been no new or unusual signs or symptoms prior to the acute disease; he only had his usual anginal and dyspneic complaints that had been part of his life for at least 3 to 4 years.

Patient five summoned help when his symptoms lasted longer than usual, a normal human reaction. His wife called the doctor, the ambulance and a neighbor, all of which takes time at 7 a.m., especially if one is frightened. All the responses were good and timely but not quite enough. There were no errors but each step took time which could not have been shortened sufficiently to preserve his life.

None of the patients who died had prodromal symptoms at his last office visit which could have been a "tip-off" of the attack that followed. Each one, when seen at the visit prior to the acute attack, had no appreciable change in physical examination or symptomatology. However, when the attack struck, there was no doubt of the gravity of the situation. Two of the patients died almost instantly, one within 2 to 3 hours, without benefit of medical intervention; it is questionable whether any of these deaths could have been reversed under any condition short of the complete monitored control of a Cardiac Care Unit. Obviously, no such environment could ever be available for every ambulatory cardiac. The other three deaths did receive maximum care, but died

nevertheless; this is understandable from both a pathological, and a philosophical point of view. Arteriosclerotic heart disease, by the nature of the disease process, does and will terminate in sudden death most of the time.

In only one patient was there a delay which may have influenced the outcome. All of the cases, fatal and otherwise, proceeded with the usual speed without an alteration in the results.

## Discussion

The primary medical physician has been overwhelmed by statistics in the lay press and medical literature which state that over 50 percent of acute heart attacks resulted in death before medical help is available. On the other hand such a physician receives innumerable calls from frightened and distressed patients who are fearful of a heart attack. Although the problem has been adequately delineated, the solution has not. The pre-coronary phase of acute myocardial infarction has been examined in order to come up with a list of recommendations that may reduce the appalling frequency of sudden and unexpected death due to arteriosclerotic heart disease.

Retrospective studies,<sup>10,11,12</sup> recommend more patient information, faster response by the ambulance, or mobile coronary care unit, better medical education, and special emphasis on the evaluation of prodromal symptoms. According to some authorities, more careful evaluation and treatment of prodromata by the attending physician might increase the feasibility of preventing the high mortality associated with the acute attack. Prodromata are symptoms or signs which are present for a variable period of time and seem to foreshadow the onset of a more serious sequence of events.<sup>12</sup> To the doctor or patient, they represent new or unusual symptoms of any kind. Patients described in most hospital retrospective studies are the survivors of the acute myocardial infarction; not included in this evaluation are the vast majority who either weren't hospitalized with their myocardial infarctions or who died (73 percent).<sup>14</sup>

A huge population group, most of whom never get to the hospital, must be advised about treatment, hospitalization, and home remedies, and about their worries and fears. Advice must be as reliable as possible since one serious mistake overbalances numerous perfect predictions; this is the problem of the medical doctor on the front line.

The number of patients, with or without previous arteriosclerotic heart disease, who will visit a physician for chest pain, sweating, palpitations, vertigo, or other symptoms and who do not have an infarction within the next month is unknown. Since it is difficult to differentiate the patients who will go on to infarction from the patient who will not, one wonders what technique can be used to separate these groups. Actually, the second group is greater probably by a magnitude of 5:1 to 10:1.

This study was performed on known cardiac patients who were already experienced in the language of this disease. They represent the extreme end of the spectrum of pathology that leads to death. Prior to reaching this select group, one may encounter:

- (1) those who have symptoms but no disease,
- (2) those with disease but no symptoms,
- (3) those with symptoms and disease, and
- (4) those with severe disease and commensurate symptoms.

The last group, in my experience, is under good medical observation and is knowledgeable and indeed sophisticated about their illness. Despite that and modern methodology, death regularly occurs in far advanced cardiacs.<sup>14</sup> The Stockholm experience concluded that the majority of fatal cases of patients with coronary artery disease would die before adequate help could be provided, despite an immediate call. Even former President Lyndon B. Johnson died suddenly, in spite of all precautions.

## Conclusion

The people who die suddenly from coronary artery disease belong to groups 2, 3 and 4, listed above. This study suggests that the individuals

in group 4 will continue to die in spite of our techniques and attention; death in these patients is the terminal event in a long process. The individuals in group 1 require no medical treatment other than reassurance. The people in group 2 are oblivious of any disease so they don't see a doctor; if they did, physical examination and routine tests would be mostly negative, unless one resorted to maximum stress testing or coronary arteriography. Nevertheless, many among this group may die suddenly while at work or play.

How can one help asymptomatic patients who do not present themselves to a medical facility? One should bring attention to risk factors, minor early clues and symptoms of coronary artery disease such as "indigestion," dyspnea, habituation to antacids, easy fatigue, weak spells and "lack of vigor;" all of these symptoms occur in other diseases, but should be investigated if recurrent. This may lead to earlier diagnosis of coronary artery disease, readjustment of life style and possible decrease in mortality, through the efforts of private practitioners and public health education facilities. However, this will not solve the major problem of sudden death in patients with known coronary artery disease.

The patients in group 3 appear to be the best target for action to decrease the appalling statistics of sudden death. These people have obvious or disguised symptoms of disease, as well as recognizable risk factors. Unfortunately, these individuals in groups 1 and 2 do not see doctors often; they may remain compensated or even ignored. We must alert these patients so they may understand their disease without frightening them into early invalidism.

Priorities in public and private health funds require us to question whether untold millions should be spent to equip mobile coronary care units and roving medical teams, and to identify target or population groups where the salvage rate is apparently low and costs exceedingly high. The Los Angeles experience with mobile coronary care units in 1969-1972 revealed that a concentrated effort can save lives but at great expense, probably too great

to be sustained by most communities as a continuous service. These same millions may be used for a program of prevention of a disease which starts in very early life in susceptible individuals, advances inexorably and produces most of the sudden deaths that are recorded, usually as a terminal event. Extensive research into life style, eating habits, emotional patterns, biological changes, autonomic nervous system tone and other pathological modalities may prove fruitful.

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(continued from page 193)

It was urged that education involve a basic core curriculum for professionals, parents, and the public, stressing prevention and help rather than punishment. Specific education in case finding and management should be provided for professionals, health paraprofessionals, school personnel, police, and rescue workers. Child rearing concepts should be begun in elementary schools, and "booster shots of education" should be given at other times, such as during home economics courses, in family planning, and during pregnancy and the early postpartum period. Special education and support should be provided for young mothers with many children, single parents, and parents with history of delinquency. Education of all parents should include information about setting limits, discipline, and improbability of spoiling. The social climate also must be altered by education of political and community leaders, P.T.A.s, local government, and school boards.

Research areas of interest should include attempts to answer the following questions:

1. Is the abusing family an inevitable product of a sick society?
2. Does child abuse represent a form of individual and family psychopathology?
3. Is it best to separate abused children from their homes into foster care?
4. Is it best to help families keep children at home?

In a general discussion at the end of the meeting, the question was raised as to whether "there was a need to take the whole question of child abuse beyond the medical perspective and see it as a problem of massive, societal abuse of children reflected in the millions of children in the United States who do not receive enough to eat and who do not receive equal treatment through prevailing institutional arrangements"? The statement was made that "... every child is of equal worth and is entitled to equal rights in the social, economic, political, and every other sphere."



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**Indications:** Lomotil is effective as adjunctive therapy in the management of diarrhea.

**Contraindications:** In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

**Warnings:** Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

**Usage in pregnancy:** Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

**Precautions:** Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine is added to discourage deliberate overdose; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

**Adverse reactions:** Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

**Dosage and administration:** Lomotil is contraindicated in children less than 2 years old. Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

**Overdosage:** Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

**Dosage forms:** Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. Liquid, 2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of 1/2 ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

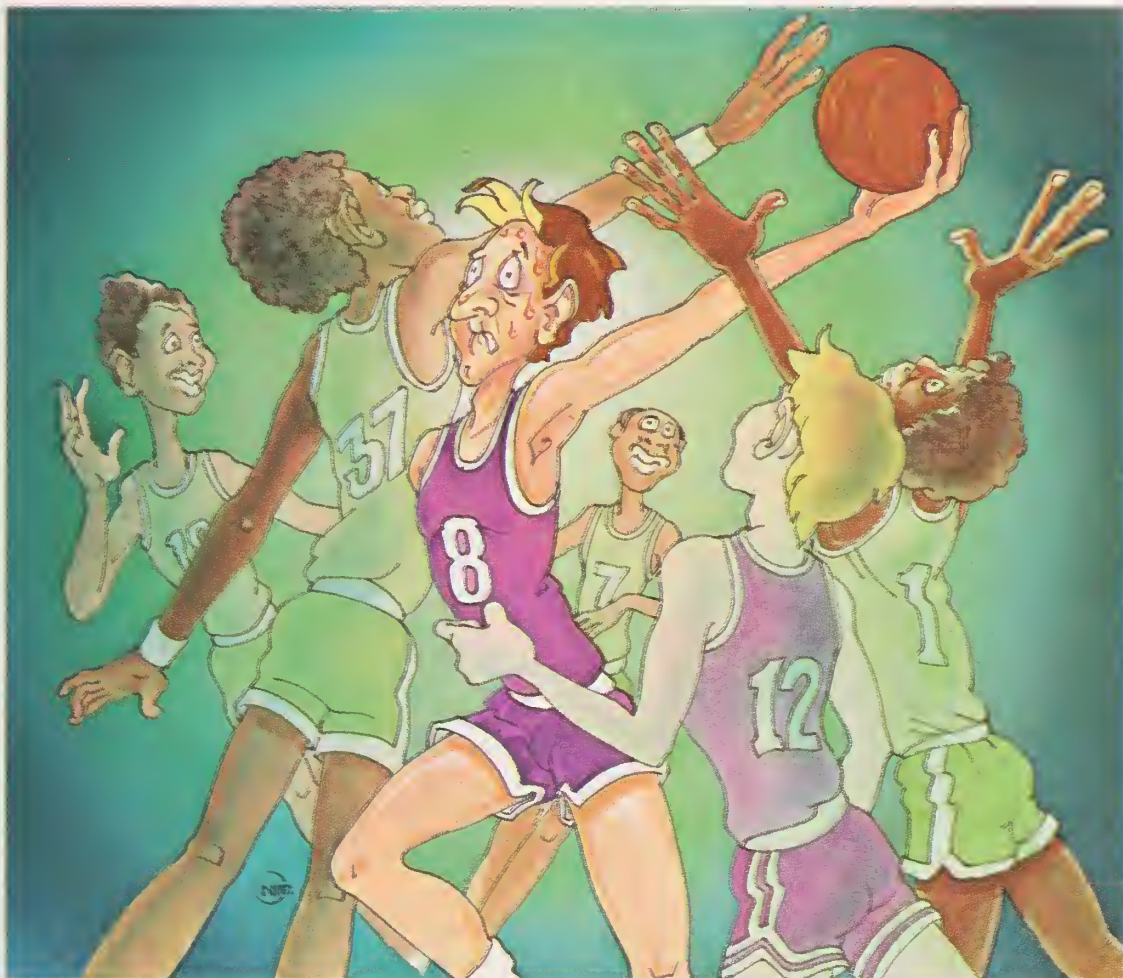
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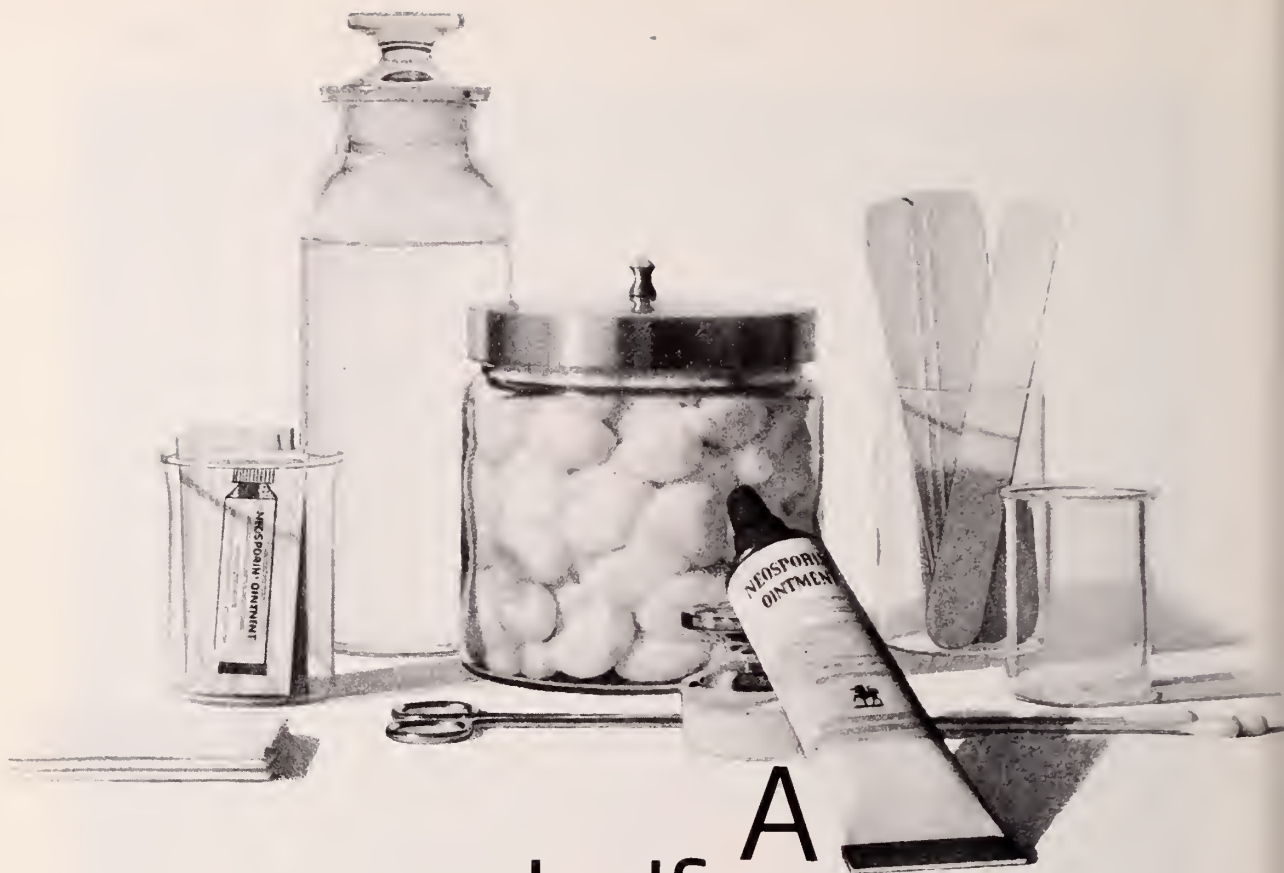
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**INDICATIONS:** *Therapeutically*, used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

*Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

**CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where

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**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

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**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia ( $>5.4$  mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

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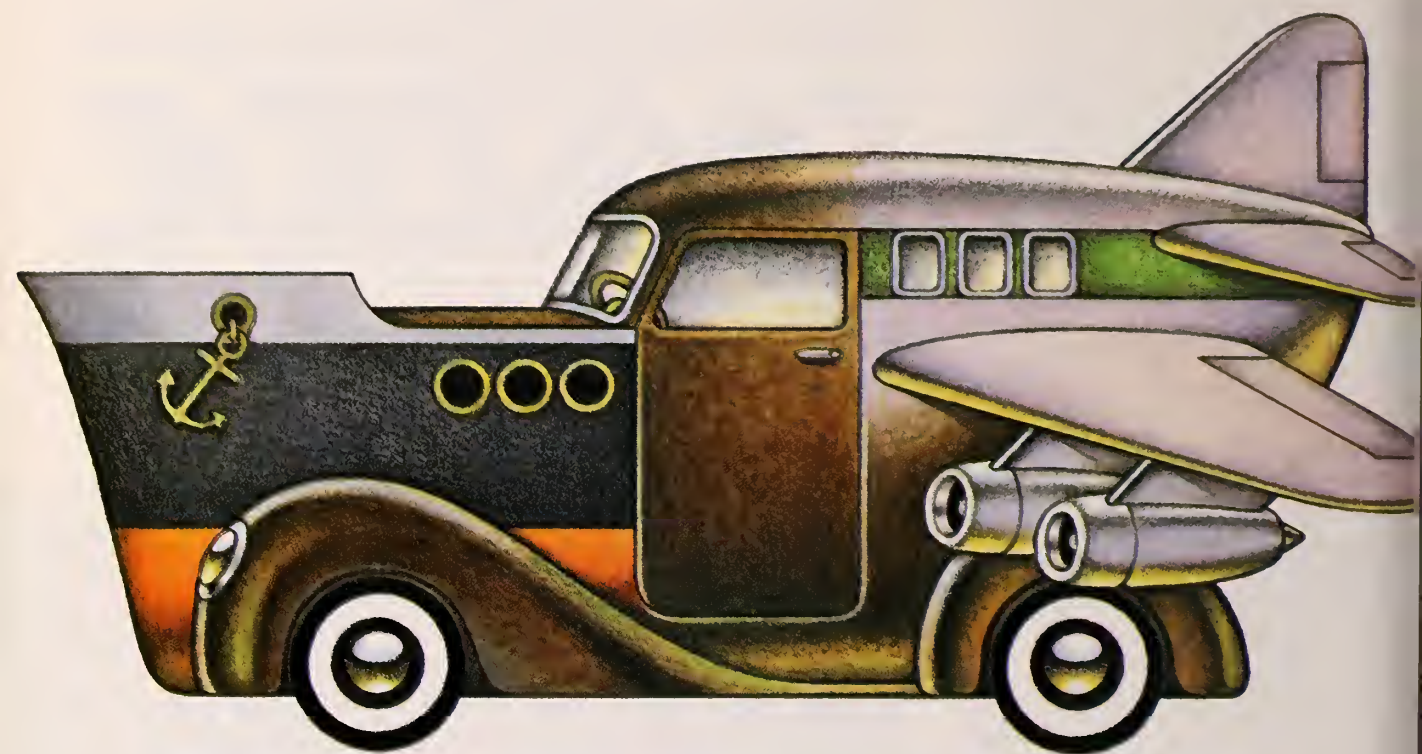
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**Usage in Children:** Clinical studies establishing safety and effectiveness in children have not been done; therefore usage is not recommended in the pediatric age group.

**Usage in Pregnancy:** See "Contraindications."

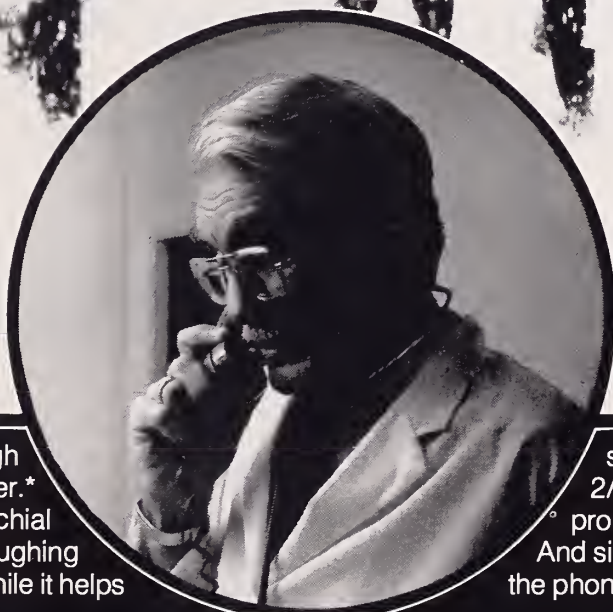
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*The effect of consecutive three-month courses of ferrous sulfate, iron-dextran complex, and oxymetholone was examined in 15 chronic hemodialysis patients. Iron-dextran therapy led to a significant improvement in hemoglobin and bone marrow iron content and decrease in transfusion requirement compared to ferrous sulfate. No definite improvement in the anemia over and above that achieved with iron-dextran could be demonstrated from oxymetholone. The response to hematinic therapy was enhanced during thrice weekly hemodialysis as compared to twice weekly hemodialysis, although the mean serum creatinine concentration was not decreased by increased dialysis frequency.*

## Treatment of Anemia in Chronic Hemodialysis Patients\*

**Richard P. Wedeen, M.D., Gregorio A. Lipat, M.D., and Bernard S. Morse, M.D., Jersey City**

Persistent severe anemia is universal in chronic hemodialysis patients. Therapy directed toward correction of the anemia takes on additional significance since reduction in transfusion requirements may also reduce the incidence of hepatitis, hemosiderosis, and antibodies to kidney transplants. Over the last five years, it has become the common practice in hemodialysis units to withhold transfusions unless hematocrits fall below 15 percent and/or overt symptoms of anemia are present.<sup>1-4</sup>

Numerous modalities have been suggested to improve the anemia of patients receiving chronic hemodialysis.<sup>3-11</sup> The plethora of favorable reports makes it difficult to determine exactly which modes of therapy are optimal. The choice of hematinic therapy is made more difficult by the variety of dialysis techniques and equipment used in reported series. Because of the uncertainty of the relative effectiveness of the iron preparations<sup>3-8</sup> and androgens,<sup>9-11</sup> we have undertaken serial trials with ferrous sulfate, iron-dextran complex, and oxymetholone in consecutive three-month periods in 15 patients on chronic hemodialysis. Compared to ferrous sulfate, iron-dextran resulted in a significant increase in hemoglobin concentration and a significant reduction in transfusion requirements. After three months of oxymetholone, no definite therapeutic response over and above that induced by parenteral iron therapy could be discerned. It is concluded that iron-dextran is

more effective than ferrous sulfate in the treatment of anemia in chronic hemodialysis patients. The effectiveness of each therapeutic modality used appeared to be enhanced by thrice weekly dialysis as compared to twice weekly treatment.

### Methods

Fifteen patients (six male, nine female) with end-stage kidney disease (mean predialysis serum creatinine 13 mg percent  $\pm$  4) who required chronic hemodialysis for survival were placed serially on consecutive three-month courses of oral ferrous sulfate (Feosol®), intramuscular iron-dextran complex (Imferon®), and oxymetholone (Anadrole®). None of the patients had undergone nephrectomy. No patient had evidence of occult bleeding as determined by stool guaiac testing, or of overt hemolysis as judged by serum bilirubin, haptoglobin, reticulocyte count, or Coombs test. All patients received six-hour hemodialysis, two or three times per week on a Kolff twin coil dialyzer (Travenol) using unpurified tap water. Diet contained at least 60 gm protein, including 45 gm protein of high-biologic value, 2 mg folate, and multivitamins per day with appropriate salt and water restriction. The study extended over a two-year period, at the midpoint of which the Travenol Ultraflo II "standard" and "high" coils replaced the prior Travenol I coils. Approximately 30 ml blood were drawn for hemoglobin (Hb), blood urea nitrogen, creatinine, serum glutamic oxaloacetic transami-

\*From the Renal Section, Department of Medicine, Jersey City Medical Center, Jersey City, New Jersey, and the New Jersey Medical School, Newark, New Jersey



nase, lactic acid dehydrogenase, Australian antigen, serum iron, and total iron-binding capacity once each month. Weekly hematocrit (Hct) determinations required approximately 15 ml blood per month, and up to 25 ml blood per month were drawn for clotting time determination during dialysis. The total monthly blood loss, therefore, ranged between 90 and 150 ml, including estimated coil losses. Blood loss due to laboratory procedures and hemodialysis approximated that reported by others.<sup>7,12</sup> Transfusions (freeze-thawed packed red cells) were given only when the Hct fell to 15 percent or less, and definite symptoms were experienced by the patient.

Bone marrow examinations and peripheral blood smears were examined between treatment periods, once every three months. The blood smears were scored from 0 to 4 on the basis of hypochromia, microcytosis, anisocytosis, and poikilocytosis determined by inspection. When all four red cell abnormalities were present, the smear was scored "4." A virtually identical evaluation resulted when standard calculated red cell indices were used. Bone marrow iron (BMFe) was estimated after staining with acid ferrocyanide.<sup>13</sup> Marrow iron was scored 0 to 4 by two observers on the basis of intensity of iron staining. Marrow erythropoiesis was estimated by determining the ratio of myeloid to erythroid elements after correcting for cellularity and scoring on a scale of 0 to 5: marked erythroid hyperplasia (M:E = 1:2) scored 5; normal M:E ratio (M:E = 4:1) scored 2; marked erythroid hypoplasia (M:E = 10:1) scored 0.

Hematinic therapy was given according to the following protocol:

1. Ferrous sulfate 300 mg TID (between meals) for at least three months. Most patients had received oral ferrous sulfate for a variable period of time prior to hemodialysis and before entering the study.
2. Iron-dextran complex 150 mg IM BW for up to three months or until prescribed total dose given. The total iron-dextran dose for each patient was determined by bone marrow iron score and serum iron concentration, as follows:

BMFe	Serum Iron	Total Fe IM	No. of Patients
0	low	3.6 gm	5
0	normal	2.4 gm	3
+	normal or low	1.2 gm	7

3. Oxymetholone 50 mg TID for three months.

For statistical purposes, weekly determinations of Hb and Hct were averaged for each three-month treatment period, and the mean values for each patient were used. This averaging tends to underestimate the increase in values which occurred at the end of each treatment period compared to the values obtained three months earlier. However, the averaging eliminates vagaries in Hb and Hct determination due to intermittent transfusions and sporadic laboratory errors.

Results

Due to the limitation of dialysis spaces, dialysis frequency often had to be reduced to twice per week rather than three times per week. There was, however, no significant change in mean serum creatinine during the courses of hematinic and dialysis therapy. For the 15-patient group, irrespective of dialysis frequency, iron-dextran therapy increased the Hb and BMFe score significantly in association with a slight but not significant increase in Hct (Table I). Oxymetholone resulted in small increases in Hb and BMFe compared to the iron-dextran period, but a significant increase in Hct occurred compared to values in the ferrous sulfate period. Despite iron therapy and bone marrow iron repletion, there was a steady decrease in serum iron-binding capacity (from 290 ± 65 to 250 ± 43 µgm/100 ml) and serum iron saturation (from 24 ± 11 to 18 ± 6%) during the nine months of therapy. No significant changes occurred in red cell hypochromia or M:E ratio throughout the study. Reticulocyte counts averaged 2 percent in all phases of the study. No megaloblastic marrows were seen.

Table I  
Effect of Anemia Therapy  
Mean ± S.E.M. (N = 15)

	Oral Ferrous Sulfate	Intra-muscular Iron-Dextran	Oxy-metholone
Hct	20.1 ± 0.8	21.1 ± 1.0	21.7 ± 1.3*
Hb	6.4 ± 0.2	7.1 ± 0.4*	7.6 ± 0.4*
BMFe	1.3 ± 0.3	2.7 ± 0.3*	2.4 ± 0.3*
Trans/mo	1.3 ± 0.4	0.7 ± 0.3*	0.4 ± 0.3*

\*Significantly different from oral ferrous sulfate period p<0.05 based on paired student t test.



The increase in Hb, Hct, and BMFe during iron-dextran and oxymetholone therapy was associated with a decreased mean transfusion requirement from 1.3 units per patient month during oral iron to 0.7 during intramuscular iron and 0.4 during oxymetholone therapy. There were no significant differences for any of the parameters measured between the iron dextran and oxymetholone treatment periods.

Because it seemed possible that the hematinic response reflected increased dialysis frequency rather than the effects of specific therapy, we divided the treatment periods into dialysis frequency groups. Treatment during twice weekly dialysis was compared to treatment when dialysis was given three times per week. There was a significantly greater response to hematinic therapy during thrice weekly dialysis than during twice weekly dialysis, when the three forms of anemia therapy are analyzed together ( $p < 0.03$ ). For combined treatment periods, Hb increased from  $6.8 \pm 0.20$  to  $7.6 \pm 0.39$  gm/100 ml, Hct from  $19.8 \pm 0.65$  to  $22.6 \pm 1.11\%$ , and transfusion requirements decreased from  $1.0 \pm 0.31$  to  $0.3 \pm 0.18$  per month during thrice weekly dialysis as compared to twice weekly dialysis.

The improvement in anemia observed with the higher hemodialysis frequency warranted further analysis of the response to the individual therapeutic modalities in terms of dialysis frequency (Figure 1). This separation of patients by dialysis frequency and therapy permitted observations of trends, although statistical analysis was not undertaken because of the small number of observations in each dialysis frequency-therapy subgroup.

There was no difference in Hct or Hb in patients dialyzed two times per week compared to those dialyzed three times per week during ferrous sulfate therapy. However, during iron-dextran and oxymetholone therapy, the patients receiving dialysis three times per week showed an increase in Hct from 20.2 on oral iron to 22.9 percent on iron-dextran, then to 24.3 percent on oxymetholone, while patients receiving dialysis only two times per week showed a decrease in Hct from 20.1 to 19.2

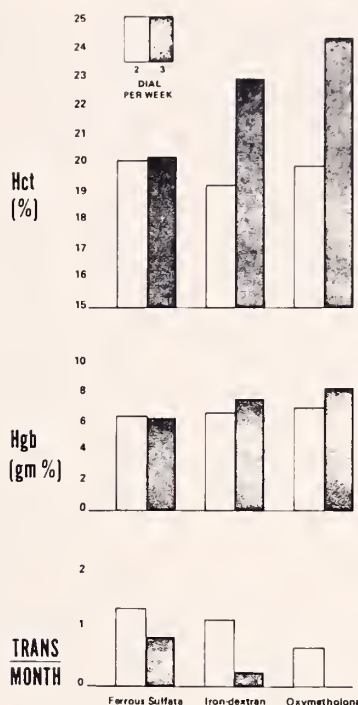


Figure 1—Effect of Dialysis Frequency in Response to Hematinic Therapy. Each therapy-frequency group is represented by a bar for each parameter measured. Open bars: two times per week dialysis; solid bars: three times per week dialysis. Each hemodialysis lasted six hours.

and 19.9 percent despite identical therapy. Similarly, a more marked increase in Hb occurred in patients receiving three dialyses per week compared to those receiving two dialyses per week. In the thrice-weekly subgroup, the Hb rose from 6.3 gm/100 ml during oral iron to 7.6 gm/100 ml during intramuscular iron and to 8.4 gm/100 ml during oxymetholone therapy, whereas the twice weekly dialysis subgroup showed an increase in Hb from 6.4 to only 6.6 and 7.1 gm/100 ml during respective therapy courses. The contribution of the more frequent hemodialysis to the therapeutic response is further indicated by the greater decrease in transfusion requirement in the three-per-week dialysis treatment periods, compared to the twice-per-week treatment periods. The combination of three-per-week dialysis with iron-dextran and oxymetholone therapy led to virtual elimination of transfusion requirements and a stable Hb averaging 8.4 gm/100 ml and an Hct of 24.3 percent.

## Discussion

In spite of numerous studies of anemia therapy during chronic hemodialysis, we were unable to find recommendations for anemia management during chronic hemodialysis with the Travenol RSP system for patients in whom transfusions and iatrogenic blood losses had always been minimal. Using oral ferrous sulfate therapy as a base-line, the present study demonstrates the enhanced effectiveness of parenteral iron-dextran in raising hemoglobin and hematocrit levels while reducing transfusion requirements. This finding is consistent with the observation that oral iron absorption in chronic hemodialysis patients is even lower than in untreated chronic uremics,<sup>14</sup> and that iron-dextran is effective in promoting erythropoiesis<sup>3</sup> in dialysis patients. The study further demonstrates the value of thrice rather than twice weekly hemodialysis. Although data comparing the effect of dialysis frequency alone on Hct, Hb, and transfusion requirements are not available in this study, such an effect might be discerned in an untreated control dialysis population.

The effectiveness of androgen therapy in these patients is doubtful. Improvement of anemia during oxymetholone therapy cannot be clearly separated from persistent hematinic effects of iron-dextran therapy from the preceding treatment period. The possibility of a delayed androgen effect, however, has not been excluded. Although a slight hematinic effect occurred during oxymetholone treatment and thrice weekly dialysis, irrespective of dialysis frequency, there was no significant change when compared to iron-dextran therapy. It seems unlikely that a significant increase in red cell mass was obscured by a concomitant androgen-induced increase in plasma volume.<sup>11</sup> The relatively low serum iron-binding capacity, iron saturation, and the tendency towards hypochromic microcytic appearance of red cells raise the possibility of inadequate availability of iron for erythropoiesis in spite of the presence of normal and increasing bone marrow iron stores<sup>15</sup>. The possible value of androgens may warrant further evaluation, since nandrolone decanoate has recently been reported to improve

the anemia of hemodialysis patients<sup>16,17</sup>. Failure of three months of oxymetholone therapy in hemodialysis patients, however, has also been recently reported by Davies, *et al.*<sup>1</sup>

It is unlikely that duration of dialysis alone contributed to the improvement in anemia noted here<sup>2,5</sup>. Nine patients were on chronic hemodialysis for from one to eight months before entering the ferrous sulfate portion of this study. Following three to eleven months of hemodialysis and oral iron, these patients showed a significant improvement in anemia when changed to iron-dextran. Most of the benefits of prolonged chronic hemodialysis should have accrued to patients during the pre-iron-dextran period. Further increments in hemoglobin and hematocrit and decreases in transfusion requirements can be appropriately attributed to specific therapy: intramuscular iron-dextran complex. Although it is generally believed that the anemia of uremia and chronic hemodialysis is normocytic and normochromic<sup>5,6</sup>, our patients uniformly showed a slightly hypochromic microcytic anemia. Iatrogenic blood losses without transfusion replacement may have contributed to this anemia in our patients.

This study provides evidence that intramuscular iron-dextran leads to an increase in hematocrit and hemoglobin and a decrease in transfusion requirements in patients on chronic hemodialysis. Perhaps, of even greater significance in the management of hemodialysis patients, this study demonstrates by simple, objective laboratory procedures that thrice weekly dialysis is superior to twice weekly dialysis. Whether the improvement in the anemia is due to the increased time of dialysis or to increased dialysis frequency, and whether comparable benefits would be seen with hemodialysis systems other than the Travenol twin coil used here remains to be determined. Recently a slowly dialyzable circulatory inhibitor of red cell metabolism has been described in some uremic patients<sup>18</sup>. This inhibitor is potentiated by chloramines found in tap water used for dialysis which has not been purified by charcoal filtration<sup>19</sup>. Although we were unable to find any evi-

dence of chloramine interference in the red cell hexose monophosphate shunt in our patients using the technique of Jacob and Jandl,<sup>20</sup> it is possible that the improvement of anemia with increased dialysis frequency is due to removal of an unidentified inhibitor of red cell metabolism or production.

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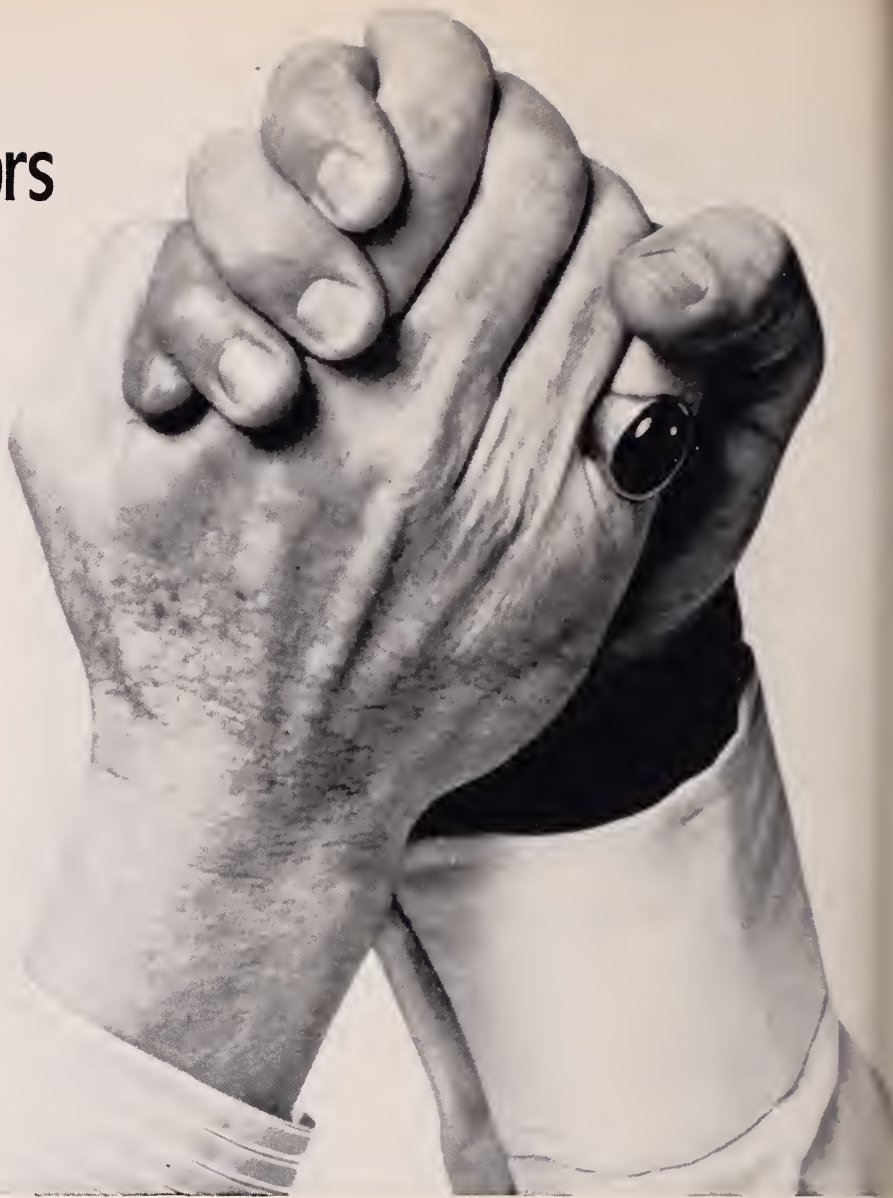
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*There is an increasing national concern in selecting qualified candidates as policemen. This paper concerns itself with the psychiatric screening process of 450 candidates who applied for the job of policeman in the Elizabeth, New Jersey Police Department from September 1963 through August 1974. A description of the screening process is given. This is followed by the results of my experience with these candidates, including two case presentations to show the nature of the interview. A discussion of the screening process, some characteristics of the acceptable candidate and where the process could further be utilized are here presented. However, we are still in need of other methods to enhance this screening process.*

## Psychiatric Screening of Police Candidates

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### I. Harold Smelson, M.D./ Elizabeth

There is an increasing national concern in selecting qualified, mentally fit candidates to perform the duties of a policeman. The selection today, in many municipalities, is still very similar to that first employed in London, England in 1829; it consisted of a character check, medical examination, some estimate of intelligence, and a personal interview. The Elizabeth, New Jersey, Police Department has used a supplemental psychiatric examination since 1962. This paper concerns itself with the psychiatric screening process of 450 candidates for the position of policemen in the Elizabeth Police Department from September, 1963 through August, 1974.

#### Description of the Screening Process

A personnel investigator conducts family and neighborhood interviews and compiles school, work, criminal, military, and medical records. The personnel officer and deputy chief review the background data and together conduct an interview with each candidate in an effort to elicit further information which might be useful to the psychiatrist. This information is then sent to me for study prior to the psychiatric interview with the candidate. It is reviewed for some indication of a behavioral pattern or other reason why the candidate may be unable effectively to perform his duties as a police officer.

The results of the Minnesota Multiphasic Personality Inventory (MMPI) are also incorporated into my screening process. The MMPI is an objective, paper-and-pencil test consisting of 566 true or false statements, printed in booklet form; it is self-administered but proc-

tored by the police department and can be completed in approximately one hour. The statements can be placed in various groups and from this a variety of scales are made which give an analysis of most facets of the personality pertinent to his behavior and mental health. The test is sent out for automatic scoring and computer analysis and the report is returned to my office for review before the candidate's psychiatric interview.

This background information and the MMPI report are used to provide significant information which can be utilized as a stimuli to evoke further responses from the candidate during the psychiatric interview.

Following his interview with the deputy chief and personnel officer, the candidate is given a letter and an appointment for a psychiatric interview, which lasts 45 minutes. The interview is conducted in a directive manner with specific questions. I tell the candidate about the questions that have been raised as a result of his background study and MMPI report. He is further questioned about his school, work, criminal, motor vehicle, military, and medical records; we discuss childhood maladjustments, family history, interpersonal relationships, interests, habits, and motivations for becoming a police officer.

Another important element in the screening process is the direct examination of the mental status of the candidate; this is based on the psychiatrist's observations of the candidate's emotional status, mental capacity, and functioning at the time of the psychiatric interview. In questionable cases, candidates are told to



return for a second and third interview, while some are also referred for further psychological testing, including the Wechsler Adult Intelligence scale (WAIS), Rorschach Inkblot Test, Sentence Completion Test and Bender Gestalt.

## Results of My Experience from 1963-1974

One hundred twelve of these 450 candidates were not recommended by me for the position of policeman because of a psychiatric disorder, behavioral pattern, or characteristic which I thought would interfere with the candidate's ability effectively to perform the duties in the department. The diagnostic categories were as follows:

Schizophrenic reactions	2
Psychoneurotic reactions	2
Psychophysiological disorders	2
Personality disorders	3
Alcoholism	3
Behavioral patterns and other characteristics	100

Fifty of the 112 candidates who were rejected returned to my office for second and third interviews. Five of these candidates had further psychological testing.

The following are some of the most common behavioral patterns and characteristics among the rejected candidates: lack of judgment, too passive, aggressive, or dependent, anti-social and alcoholic tendencies, insecure, inadequate, immature, low self-esteem, hostile, prejudice, unrealistic, untruthful, lack of motivation for police work, inability to communicate effectively, and poor interpersonal relationships.

## Case Reports:

*Case 1* — Candidate was a twenty-two year old male, separated for one month from his wife and two-year-old son, who has returned to live with his parents. In an interview with his wife she told the personnel investigator that her husband "drinks heavily, and has a bad temper." The neighbors report that he and his wife are "always quarreling and fighting." The candidate was arrested in 1970 for assault with a deadly weapon on a complaint from his father, but the charges were dropped. Significant findings noted by me after reviewing the MMPI report: candidate might have difficulty in maintaining impulse control, acting out behavior, and a drinking problem.

In the interview, candidate stated that he wanted to be a policeman since early childhood but could give no further associations. He would not talk about his marriage other than to say that conversation with his wife would result in an

argument. When asked about his social life, he said that he stayed at home most of the time; if he did go out, it was alone to two neighborhood bars. He did not socialize with his neighbors and did not have friends. When questioned about his drinking pattern, his association was that he loved his beer and could drink all day if he was watching television. He told me that he was in an alcoholic rehabilitation group for one week while in the military service, but did not have to continue in the program. He was questioned about his work in military service and there was a period of six months that he could not work as a military policeman, have a gun, or be allowed in the armor room; he said that the reason for all of this was his commanding officer was prejudiced.

When he was asked about his charge of criminal assault, candidate said that he had to protect his "mama" from his "alcoholic father." His father threatened his mother with a butcher knife and she handed the candidate a loaded, unregistered revolver; he shot five bullets over his father's head and said that if it had been anyone else he would have "killed him." For the remainder of the interview he would not reveal himself when questioned about school, work, childhood, family, and interpersonal problems. He had no hobbies, and denied ever using drugs other than by prescription. There were no motor vehicle violations to be discussed from his background report and he remarked that he was a good driver.

On direct examination candidate walked into the the office with his shirt completely unbuttoned so his bare chest was showing. He tapped his right foot intermittently, would not look at me when he answered my directed questions and laughed or smiled inappropriately during the conversation. His stream of talk was adequate and he was trying to answer my questions so as to win my approval. His affect was extremely cheerful throughout the interview. From conversation there appeared to be no disturbance in his memory or orientation. His judgment seemed impaired when he talked about how he handled the episode with his parents for which his father charged him with criminal assault.

On the basis of the background information, MMPI report and my psychiatric interview, candidate was not recommended for the job of a patrolman in the Elizabeth Police Department. In my opinion he has alcoholic tendencies, lacks motivation for police work, is untruthful, and unable to communicate effectively, forms poor interpersonal relationships, and uses poor judgment.

*Case 2* — Candidate was a 27-year old male who has been married for four years and has two children, ages three years and one month. In an interview with the personnel investigator, his wife stated that she would like her husband to become a police officer; the shift work would not disturb her because he is working this way in his current job. The neighbors reported that the candidate is honest, quiet, and friendly, and all recommended him for the job as a policeman. He did not have any disciplinary problems in high school and was active in track. Following his discharge from the Air Force in 1970, he had been working as a security guard in a factory. He had no disciplinary problems in the service; his present employer described him as honest and a good worker. He had one reported motor vehicle violation for disobeying a traffic signal in 1969. From the MMPI report he is without significant pathology.

In the forty-five minute interview, candidate stated that he wanted to be a police officer because he is looking for security in life and likes working with people. When



questioned about school, he stated that he was an average student in high school, had many friends, and was active in track. He enjoyed his present work as a security guard, and was in the air police while in the service. Candidate denied that he had any problems in childhood except to say that at times there were financial difficulties. His mother, father, three sisters, and one brother visit each other about every two weeks and are all happy about his wanting to be a police officer. They get together with their friends quite frequently; his hobbies are fishing and tennis. He has no drinking pattern but will have an occasional drink at home or with his friends if they go out to a night club. He denied the use of drugs. His motor vehicle violation was in the service when he was driving home on furlough.

On direct examination candidate was friendly, well-groomed, and neatly dressed; he looked at me during the major part of my directive interview. His stream of talk was adequate and there was no pathology in the content of thought. His affect was appropriate. From the conversation there seemed to be no disturbance in his memory, orientation, or judgment.

On the basis of the background information, MMPI report and my psychiatric interview, candidate was recommended for the job of a patrolman in the Elizabeth Police Department. I was unable to obtain any behavioral pattern or other specific reason why he should be rejected for the job as a patrolman.

## Discussion

Consultants who rely solely on clinical interviews without the use of collateral source material can come to erroneous conclusions concerning the mental competence of the police candidate. The background information, MMPI report, directive psychiatric interview, and mental status examination help to facilitate the accuracy of the screening process. Nevertheless it still falls short of its goal which is the ability accurately to determine whether the candidate will be able to perform the duties of a police officer.

The candidate is being forced into an examination which he does not want; the relationship between psychiatrist and candidate is influenced in a negative way even before he arrives at the interview. At the office, communication is impaired and it is impossible to get confidence and trust on the part of the candidate in one 45 minute interview. He is not coming for the relief of any disturbing symptoms and there is no therapeutic goal. Productivity is extremely limited for it is impossible to get free expression of thoughts and feelings. A non-directive approach in the interview is not possible and even with a directive approach it is difficult to find clinical, descriptive, or psychodynamic material

to determine whether the candidate is mentally unfit effectively to perform his duties as a policeman. The conversation can not be guided and many times the candidate has to be pursued in the manner of a prosecuting attorney to obtain further information. Prolonged silences would occur if the psychiatrist did not ask questions.

The candidate is apprehensive; has a fear of revealing himself and refuses to talk in depth about intimate topics such as sex, marital problems, drugs, or alcohol; he knows that the psychiatrist's notes are not confidential and he sees the psychiatrist as a threat to his job. The candidate leaves the office concerned, questioning whether or not he made a favorable impression, if his revelations will be held against him, and whether he has passed the test and is mentally competent to have the job as a policeman.

Many of these candidates who have been accepted by the screening process come from low socioeconomic backgrounds and were not motivated by their parents to pursue higher education because of the lack of financial resources; they are above average in intelligence, and become oriented toward a job involving working with people; they have a strong need to achieve, dominate, and be the center of attention, yet they understand the feeling and behavior of others.

In Union County, this process has now been incorporated into the selection of candidates for the Roselle Fire Department. It can also be utilized for pre-employment screening in industry, government, religion, education, and any other professions which involves working with people.

We are still in need of further methods to enhance this screening process: to improve the doctor-patient relationship and reduce the conscious inhibitory control of the candidate in order to obtain material from different levels of consciousness. Perhaps this can be accomplished through longer interviews and multiple individual or group interviews; this of course would require a greater appropriation of funds.

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701 Newark Avenue

### INFORMATION FOR READERS AND CONTRIBUTORS

*The Journal*, the official organ of The Medical Society of New Jersey, is published monthly under the direction of the Committee on Publication. *The Journal* is released the first week of the month, and a copy is sent to each member of the Society.

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THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

P.O. Box 904, Trenton, New Jersey 08605

*The charts of 37 patients who were placed on cromolyn were taken for review. The patients were divided into three groups by age and further divided by whether they were allergic or non-allergic. They were asked subjectively to evaluate cromolyn's relief-giving properties. Seventy percent said they had good results, with slightly better results in the younger age groups. Eighty-four percent of the allergic asthmatics and forty-one percent of the non-allergic asthmatics had good results. Of 18 patients on steroids, 10 were able to reduce dosage.*

## A Clinical Study of the Use of Cromolyn in Asthma

**Michael S. Mattikow, M.D./Wayne\***

Cromolyn<sup>†</sup> was released in the United States for clinical use in the summer of 1973 with much fanfare as a breakthrough in the treatment of asthma. Its mode of action is unlike other drugs used in asthma; it is purely prophylactic and has no place in the therapy of an acute attack.

In this paper, I would like to give my experiences after one year of cromolyn usage and relate the results to a few of the controlled studies done over the last five years. The review concerns the drug's effectiveness in an average New Jersey suburban middle class allergy practice with suggestions as to its use.

### Study

The charts of thirty-seven patients who were treated with cromolyn were taken at random for review. This mixed, unselected group consisted of all the cromolyn-treated patients who visited the office over a one-week period. Twenty-six patients were female and eleven were male. All had been on the drug for at least two months.

The patients were divided into three groups by age: (1) less than 20 years, (2) 20-40 years, and (3) over 40 years. The youngest was 10, the oldest 72 years. These were further divided into allergic (extrinsic) or non-allergic (intrinsic) asthma. They were also grouped as to the presence or absence of steroid dependence. The patients were asked subjectively to evaluate cromolyn's relief-giving properties as "good," "fair," or "of no help." All had pul-

monary function studies before and during their course of therapy.

### Results

Of the eight patients in Group 1 six (75%) claimed good results. Ten of 13 (77%) in Group 2 claimed good results; of the 16 in Group 3, 10 (67%) felt the results were good. (Table 1) This means a total of 26/37 (70%)

Table 1  
Results of Treatment by Age

Results	Age in Years			Total
	Group 1 Less Than 20	Group 2 20-40	Group 3 Over 40	
Good	6	10	10	26
Fair	1	2	2	5
No Help	1	1	4	6
Total	8	13	16	37
Percent Good Results	75%	77%	67%	70%

Table 2  
Results of Treatment by Type of Asthma

Results	Extrinsic	Intrinsic
Good	21	5
Fair	2	3
No Help	2	4
Percent Good Results	84%	41%

were subjectively improved. Twenty-five patients were considered to have extrinsic asthma. Of these, 21 (84%) claimed good subjective relief. Five of 12 patients (41%) with intrinsic asthma felt they were improved after cromolyn. (Table 2) Eighteen patients

\*Dr. Mattikow is Assistant Clinical Professor, New Jersey Medical School, CMDNJ.

†Intal® Fisons, Aarane® Syntex.



were taking steroids and, of these, ten were able to reduce or discontinue this medication. Six of 37 patients had objective improvement in their pulmonary function studies, but four patients had to be hospitalized on one occasion each while on cromolyn therapy.

## Discussion

In September 1972, an article appeared in *The Journal of The Medical Society of New Jersey* predicting the imminent clinical release of cromolyn after extensive experiments in this country and use in eighty-one other countries.<sup>1</sup> In that article, it was suggested that cromolyn would be useful in the following circumstances:

1. Immediately before an unavoidable exposure to allergic substances. For example, a patient who likes to ride horses but who is allergic to them.
2. During a period of high pollen or mold exposure if the patient is sensitive to these allergens.
3. In a very labile patient who doesn't respond to the standard methods of treatment of allergy, including manipulation of the environment.
4. In the severe, chronic asthmatic of multiple etiology who is poorly controlled except by the use of continuous steroids and bronchodilators. Unfortunately, results are not always impressive in this type of patient.

After one year's experience, these suggestions still hold true but experience has changed the emphasis. Finding 26/37 patients with subjective improvement, in this study, is in agreement with the results of the large, controlled study of the drug committee of the American Academy of Allergy. In that study 70 per cent showed a preference for cromolyn over placebo.<sup>2</sup> However, the subjective evaluation, "good," must be further defined. Many patients still had wheezing when examined and needed constant oral bronchodilators. They still had "attacks" which necessitated epinephrine or courses of steroids. The fact that ten of 18 steroid dependent patients were able to stop or lower steroids is impressive. However, reduction of steroids must be done slowly; often, steroid dose must again be raised during a crisis period. This is in keeping with the findings at the Children's Asthma Research Institute and Hospital (CARIH) where nearly one-half of the children on steroids were

able to lower their doses after cromolyn.<sup>3</sup> The better results with extrinsic asthma (21/25) than intrinsic asthma (5/12) was predictable on a theoretical basis and was also found in previous studies. Since five of 12 claimed a good response, it certainly indicates that any non-allergic asthmatic doing poorly is a candidate for a trial of cromolyn.

The better results in the younger age group was also noted in the AAA's study, yet the high percentage of response in those over 40 (10/16) in this study suggest that a clinical trial is indicated in elderly patients. Excellent results were obtained in patients with exercise-induced asthma by using cromolyn one-half hour before exercise.

Very few side effects were noted. One patient (not in the study) developed a macular rash which disappeared upon withdrawal of the drug. Four patients complained of sore throats, two had coughing and momentary bronchospasm.

One recurrent problem was keeping the powder dry; the powder cannot be used when damp. The very young or severely ill, older patient with chronic obstructive lung disease, having a low vital capacity (less than 1 liter), was physically unable to inhale the powder from the spinhaler. On the other hand, a few patients, who did well, were able to reduce the dosage to two capsules daily rather than the recommended four. In some patients, it took a full month before beneficial results were noted.

The suggestion has been made to have the patient who also has rhinitis exhale the residue powder through his nose for relief of these symptoms. Unfortunately, results subjectively weren't impressive. We also noted that, at times of high pollen count, mold count or air pollution, even patients who seemed improved on cromolyn required other medications.

## Conclusion

Cromolyn is a useful adjunct in the therapy

of certain asthmatics, but it has not proved to be a panacea nor has it supplanted the more conventional modes of treatment. It has no role in treating acute episodes. The following patient criteria are suggested for its use.

1. Any intractable asthmatic who hasn't responded to environmental control, bronchodilators and/or hypo-sensitization treatment, regardless of age or cause.

2. Any asthmatic patient being treated with steroids.

3. In a brittle asthmatic patient when symptomatic (i.e., during a high pollen season.)

4. For patients subject to exercise-induced asthma.

5. In the animal-sensitive patient who cannot avoid animal danders; e.g., a veterinarian.

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1777 Hamburg Turnpike

## Prevent Blindness — 1974 Fact Sheet

**General** — A person is legally blind if his corrected vision for distance is 20/200 or less, in the better eye.

There are an estimated 479,000 legally blind people in the U.S. today. Half of these cases, whether due to disease, accident, neglect, or ignorance, could have been prevented with current medical knowledge and techniques.

In the next 12 months, an estimated 44,750 more people in the U.S. will become blind — or, one person every twelve minutes. There are more than 9.6 million people in the U.S with some degree of visual impairment. Of these, over 1.3 million have an impairment severe enough to prevent them from reading newsprint, even with the aid of glasses.

**Cataract** — Cataract is the leading cause of blindness in the U.S. today, accounting for 16 percent of all cases. The prevalence of cataract increases with age. Among those 65 years and over, 75 percent will develop the condition to some degree. The only cure for cataract is surgery, which provides recovery of vision in more than 95 percent of cases.

**Glaucoma** — Glaucoma, the second leading cause, accounts for 14 percent of all blindness.

At present, an estimated 1,773,000 people in the U.S. age 35 and older have this disease. Insidious in nature, glaucoma can gradually rob its victims of sight, often without pain or other symptoms. Yet, it is highly treatable if caught in its early stages. The best defense is an eye examination every two years after age 35. Glaucoma screenings, a major NSPB community service, are an important means of detecting signs of the disease and of educating the public.

**Other Eye Conditions** — Diabetic retinopathy is fast becoming the leading cause among new cases of blindness, as the number of diabetics increases and more reach the age of disease onset. At present, it accounts for 10 percent of all blindness. Vascular problems, increasingly prevalent with aging, now account for 8 percent of all blindness. Retinal changes associated with aging account for 13 percent of all blindness — some 80 percent attack the macula, the small area of the retina which is responsible for fine or distinct vision, such as is required for reading.

**Children's Eye Care** — A child can be given a complete eye examination as early as the day he is born, and it is recommended that he have one before hospital discharge. A child should

(continued on page 232)

# Breast self-examination:


## KEY ROLE OF THE PHYSICIAN

<b>item:</b>	Breast cancer is a major concern of American women, according to a recent Gallup study conducted for the American Cancer Society.
<b>item:</b>	Although aware that early discovery improves the chances of cure, and that BSE can lead to early discovery, <i>fewer than 1 in 5</i> women practice BSE, and <i>only half</i> have an annual breast examination by a physician.
<b>item:</b>	Only 35% of all women polled reported that a <i>physician</i> had ever raised the subject of breast self-examination, and only 24% had received instruction from the physician on how to do it. Even among women who regularly see a gynecologist, only 34% had been instructed on BSE.
<b>item:</b>	<i>But</i> , among women who received personal instruction from their physicians, the overwhelming majority (92%) practiced BSE during the preceding year.

The Gallup study revealed that, far more important than increasing awareness of breast self-examination, is the problem of inducing women to practice it regularly. The physician plays a key role in this—by teaching women the correct technique, and instilling in them the confidence that will assure their continued practice of BSE.

The American Cancer Society gives

major emphasis to breast cancer through research and a vast array of public educational materials, designed to give women life-saving information about the disease. Our latest approach is via a pioneering television film starring Jennifer O'Neill, "Breast Cancer: Where We Are." Where we *will* be in a few years will certainly hinge on our joint efforts.

**American Cancer Society** 

NEW JERSEY DIVISION  
2700 Route 22 PO Box 1220  
Union, N.J. 07083





## Putting out the fires of arthritic pain

Rheumatoid arthritis can sometimes spread like wildfire, with onset after joint going up inflamed. "The usual onset is manifested by spotty joint involvement but an acute onset of symmetrical polyarthritis may be noted."<sup>1</sup>

If aspirin fails, consider Butazolidin alka. Giving one capsule four times a day often provides prompt, pain-relieving, anti-inflammatory action to help restore joint mobility. The results you can get within a week can be maintained on as little as one or two capsules daily.

Serious side effects can occur. Select patients carefully (particularly the elderly) and follow them closely in line with the drug's precautions, warnings, contraindications and adverse reactions. For full details, please read the prescribing information. It's summarized on the back of this page.

### **Butazolidin® alka**

Each capsule contains:

100 mg. phenylbutazone USP

100 mg. dried aluminum hydroxide gel USP

150 mg. magnesium trisilicate USP

If it doesn't work in a week, forget it.



**Fire fighter  
for arthritic  
flare-ups.**

**Butazolidin® alka**

Each capsule contains:  
100 mg. phenylbutazone USP  
100 mg. dried aluminum hydroxide gel USP  
150 mg. magnesium trisilicate USP

**If it doesn't work in a week, forget it.**  
Ragan, C.: The Clinical Picture of Rheumatoid Arthritis in Arthritis, ed. 8, edited by J. L. Hollander and D. J. McCarty, Jr., Philadelphia: Lea & Febiger, 1972, chap. 21, p. 335.

**Geigy**

**Important Note:** This drug is not a simple analgesic. Do not administer casually. Carefully evaluate patients before starting treatment and keep them under close supervision. Obtain a detailed history, and complete physical and laboratory examination (complete hemogram, urinalysis, etc.) before prescribing and at frequent intervals thereafter. Carefully select patients, avoiding those responsive to routine measures, contraindicated patients or those who cannot be observed frequently. Warn patients not to exceed recommended dosage. Short-term relief of severe symptoms with the smallest possible dosage is the goal of therapy. Dosage should be taken with meals or a full glass of milk. Substitute alka capsules for tablets if dyspeptic symptoms occur. Patients should discontinue the drug and report immediately any sign of: fever, sore throat, oral lesions (symptoms of blood dyscrasia); dyspepsia, epigastric pain, symptoms of anemia, black or tarry stools or other evidence of intestinal ulceration or hemorrhage, skin reactions, significant weight gain or edema. A one-week trial period is adequate. Discontinue in the absence of a favorable response. Restrict treatment periods to one week in patients over sixty.

**Indications:** Rheumatoid arthritis, osteoarthritis, bursitis, acute gouty arthritis and rheumatoid spondylitis.

**Contraindications:** Children 14 years or less; senile patients, history or symptoms of G.I. inflammation or ulceration including severe, recurrent or persistent dyspepsia, history or presence of drug allergy, blood dyscrasias, renal, hepatic or cardiac dysfunction; hypertension, thyroid disease, systemic edema, stomatitis and salivary gland enlargement due to the drug, polymyalgia rheumatica and temporal arteritis, patients receiving other potent chemotherapeutic agents, or long-term anticoagulant therapy.

**Warnings:** Age, weight, dosage, duration of therapy, existence of concomitant diseases, and concurrent potent chemotherapy affect incidence of toxic reactions. Carefully instruct and observe the individual patient, especially the aging (forty years and over) who have increased susceptibility to the toxicity of the drug. Use lowest effective dosage. Weigh initially unpre-

dictable benefits against potential risk of severe, even fatal, reactions. The disease condition itself is unaltered by the drug. Use with caution in first trimester of pregnancy and in nursing mothers. Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.

**Precautions:** The following should be accomplished at regular intervals. Careful detailed history for disease being treated and detection of earliest signs of adverse reactions, complete physical examination including check of patient's weight, complete weekly (especially for the aging) or an every two week blood check, pertinent laboratory studies. Caution patients about participating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.

**Adverse Reactions:** This is a potent drug, its misuse can lead to serious results. Review detailed information before beginning therapy. Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with perforation and hemorrhage, ulceration and perforation of large bowel, occult G.I. bleeding with anemia, gastritis, epigastric pain, hematemesis, dys-

pepsia, nausea, vomiting and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G.I. bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow depression, sodium and chloride retention, water retention and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (cholestasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), exfoliative dermatitis, serum sickness, hypersensitivity angitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic reactions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumatica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hyperglycemia, thyroid hyperplasia, toxic goiter, association of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy; CNS reactions associated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia, ulcerative stomatitis, salivary gland enlargement.

(B)98-146-070-J (10/71)

For complete details, including dosage, please see full prescribing information.

GEIGY Pharmaceuticals  
Division of CIBA-GEIGY Corporation  
Ardley, New York 10502

BU 10259



*Computerized microbiology reporting is a process for developing statistics on incidence rates of infectious bacteria and their susceptibilities to principal antibiotics. The system serves as a diagnostic aid, a guideline for prescribing the most effective antibiotic at a particular time and place, and as a reference for infection control. The pharmacist and the bacteriologist, working together, can provide the medical staff with accurate data for consideration toward improved therapeutic measures resulting in better patient care and better cost control for the hospital.*

## Computerized Microbiology Reporting Vital to Pharmacy of Inner-City Hospitals

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**Michael C. Rainone/Newark\***

The efficacy of the computer in the financial and billing areas of hospitals has been well established. Its utilization in areas of direct patient care are still in the development stages. However, substantial advances have been made and reported on the benefits of computerized microbiology reporting systems for the clinical laboratory, infectious diseases committees, and overall patient care.

At the Martland Hospital Unit of the College of Medicine and Dentistry of New Jersey, these advances have been recognized and our experience has shown that one of the greatest beneficiaries from the computerized microbiology system — in terms of qualitative and quantitative results — has been the hospital pharmacy. The benefits are particularly magnified when applied to the wide variety of needs and demands faced by an inner-city hospital today.

The Martland Hospital Unit, located in the socially and economically depressed inner-city of Newark, New Jersey, is a more-than-600 bed medical care facility charged with the responsibility of serving a dual function. Its first and primary role is that of a community hospital providing all the acute care and clinical services to meet the needs of the patient area it serves. It is also, at this time, the educational facility for the College of Medicine and Dentistry and assumes the obligations and responsibilities inherent in a university teaching hospital while the new medical/dental school complex is being constructed on land adjacent to the hospital.

While construction is underway, Martland con-

tinues to meet the heavy requirements of emergency and clinical treatment, inpatient care and community services.

The hospital pharmacy is equally taxed for services because of the limited number of commercial pharmacies in the area and their early closing hours; it has assumed the role of an emergency drug store to serve the community. In addition, the volume of orders filled by the pharmacy is increased by the number of Medicaid patients who, because of the paperwork involved with Medicaid-prescriptions, prefer the hospital pharmacy over the local drug stores. This expanded role of the Martland Hospital pharmacy has been necessary in order to meet the existing conditions and needs of the community and to maintain a high level of quality services.

### Computerized Microbiology Reporting

Computerized microbiology reporting is a process for developing statistics on incidence rates of infectious bacteria, and their susceptibilities to principal antibiotics. The root purpose is to provide the hospital with current, local data on organism incidence and antibiotic effectiveness. It serves as a diagnostic aid, a guideline for prescribing the most effective antibiotic at a particular time and place, and as reference for infection control work in the patient rooms and quality control work in the laboratory. Such systems can be put on the hospital computers or provided at low cost by subscribing to an outside computer service.

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\*Mr. Rainone is Director, Department of Pharmaceutical Services, Martland Hospital Unit, CMDNJ, Newark.



At Martland, it was the hospital pharmacy that took the initiative for engaging in computerized microbiology reporting. After a thorough investigation into the relative merits and costs, between putting the system on the hospital's in-house computers or contracting for the service with an already established organization, we chose the latter course. Our decision to go with an outside service was based on the factors of efficiency, broadness of service, time, and costs. To undertake a microbiology reporting system on our own in-house computer would have required months of programming, system shakedown, and manpower costs that would have proved to be much more expensive than the total program package available from an outside resource.

In early 1971, we subscribed to the Bac-Data Medical Information System, which is perhaps the most widely accepted service for computerized microbiology reporting systems. In its chart of accounts, this company services approximately 200 hospitals, in the 500-bed or under category, throughout the country. The Bac-Data Medical Information System contract costs to the Pharmacy Research Grant figures out to 33 cents per bed per month, or less than \$2,000 a year.

### Special Problems in Inner City

Cost alone, however, was not the determining factor influencing our decision to get into computerized microbiology reporting. It was the unique requirements for patient care that are to be found in an inner-city hospital. Other considerations were the quality control benefits in the laboratory, enhancement of infection control and the accrued benefits to Martland as a teaching hospital with its responsibilities to medical education. From a pharmacy standpoint, our concern for quality patient care was the prime consideration for instituting the computerized system.

Unlike the spacious suburbs with their wholesome environment and stable population, the inner-city is an overcrowded, socially and economically depressed area with a polluted environment and a constantly shifting population. It is a breeding ground for infectious and communicable diseases.

In addition to the environmental factors influencing the incidence rates of infectious bacteria, the limited financial circumstances of the inner-city patients influence some medical decisions of well-meaning physicians. A less expensive and less effective antibiotic might be prescribed, or a less than full dose ordered, in an effort to save the patient a few pennies. The result is that the prevention and control of bacteriologic infections in the inner-city become quite different from what is to be found in the more affluent suburbs.

In an effort to reverse the picture of bacterial incidence in the inner-city we subscribed to the Bac-Data computerized microbiology reporting system as a means of determining the incidence level, strains of bacteria, and the drugs and recommended doses which work best against them. The system provides us with this vital information — and more.

### System Implementation

Pharmacy personnel check laboratory slips on all cultures done in the bacteriology laboratory every day and enter the results on a computer-readable Bac-Data card. The job takes about 20 to 30 seconds per test. Data entered on the card are the pathogens isolated, their source by hospital service and by body site, and sensitivities when tested against antibiotics. These cards are mailed off to the computer service center.

In return, each month, the pharmacy receives a series of reports detailing incidence patterns and antibiotic sensitivities, at this hospital for the present period as well as comparative national statistics and figures for previous months. The reports differentiate between community-associated and nosocomial infection, a valuable aid in infection control.

Monthly reports received by the Pharmacy include:

1. Organism incidence and antibiotic sensitivity, hospital-wide.
2. Incidence and sensitivity, by body site.
3. Incidence and sensitivity, by department.
4. Incidence and percentage of organisms within each department.
5. Incidence and percentage of organisms from each body site.

6. Monthly trend of selected organisms by department.
7. Monthly trend of selected organisms by body site.
8. Monthly sensitivity trends of selected organisms.
9. National incidence and sensitivity patterns for hospitals using Kirby-Bauer laboratory methodology, which is fast becoming the national standard.

When the reports are received, the pharmacy studies the incidence and sensitivity trends in particular, and makes the entire set of reports available for inspection by clinicians, the infectious diseases committee, the pharmacy and therapeutics committee and, most of all, *the laboratory*.

### Summary

At least three very tangible results for the pharmacy have been observed since the system went into effect at Martland:

- a. A definite shift in prescribing patterns toward the most effective antibiotic and toward the optimum dosage.
- b. Ability to better predict our antibiotic needs for the contract year, and thus obtain better prices from our pharmaceutical suppliers. The system returns at least twice its annual price in savings on drug purchases.
- c. Closer consultation with clinicians on antibiotic prescrip-

tions, particularly when the less frequently occurring organisms are encountered.

Other hospital pharmacies<sup>1</sup> have used the Bac-Data information as the basis for cost-effectiveness studies of the major antibiotics and have thereby been able to reduce patients' drug expenditures. It is reported that, here again, computerized microbiology reporting more than paid for itself out of reduced drug expenditures by the patient. We plan to explore this area and expand our research program as this teaching hospital grows.

From the very outset of computerized microbiology reporting a decade ago, few challenged its theoretical benefits, its research value, and its educational value in teaching situations. Experience at this hospital has, moreover, demonstrated its practical value in patient care as well as its economic justification for the pharmacy itself, let alone the hospital as a whole.

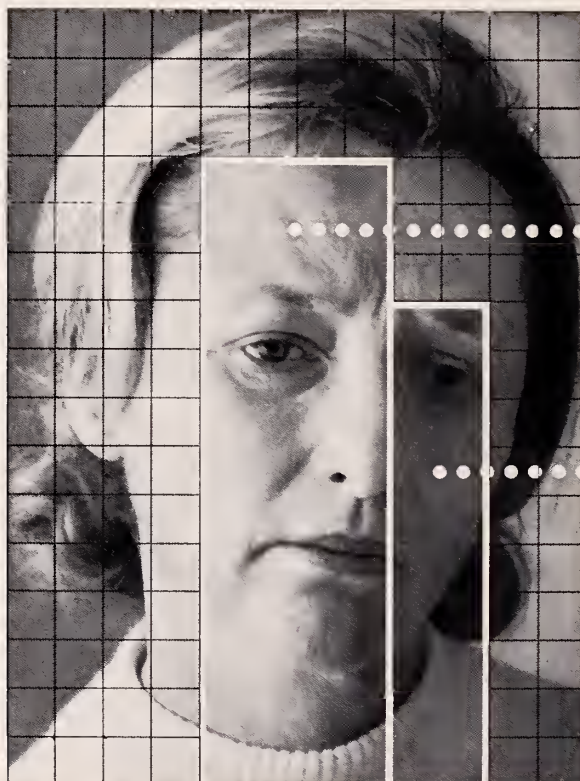
<sup>1</sup>Madden, Richard: Simple drug-effectiveness monitoring helps upgrade patient care, control patient drug bills. *Am J Hosp Pharm* 31:262, 1974.

65 Bergen Avenue

### **Governor's Conference on Health Care Delivery Saturday, May 31, 8:30 a.m.**

The 209th Annual Meeting of The Medical Society of New Jersey, May 31 to June 3, will be the scene of the First Annual Governor's Conference on "Unresolved Questions Affecting the Delivery of Health Care." The session is scheduled for Saturday, May 31 at 8:30 a.m. Keynote speaker will be The Honorable Brendan Byrne, Governor of New Jersey. Allen R. Nelson, M.D., of Salt Lake City, a member of the National Council of Professional Standards, will address the meeting on "The Effects on Health Care Delivery of Government Mandated Accountability." Other topics to be covered are "The Impact of National Health Insurance on Patient Expectation" and "Modifying the Medical Service System to Meet the Expanded Health Care Needs."

# Both often



- Predominant psychoneurotic anxiety

- Associated depressive symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). In addiction-prone individuals under car-



# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the prescription she gives of her feelings, part of the problem may sound like depression. This is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also then relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



## Valium<sup>®</sup> (diazepam) 2-mg, 5-mg, 10-mg tablets

in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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**Methyltestosterone N.F. — 5, 10, 25 mg.**

**DESCRIPTION:** Methyltestosterone is 17 $\beta$ -Hydroxy-17-Methylandroster-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating male: for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. HOW SUPPLIED: 5, 10, 25 mg. in bottles of 60, 250.

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# CASE REPORT

*A case of a benign squamous papilloma of the esophagus in a 53-year-old male is described. The patient had a 36-year history of epigastric pain and was treated for gastric ulcers. The esophageal papilloma was visualized in both roentgenograms and esophago-gastroscopy. The neoplasm was removed by esophageal polypectomy. The patient shows no recurrence of his lesion two years post-operatively and is asymptomatic as to his upper gastrointestinal tract.*

## Squamous Cell Papilloma of the Esophagus\*

### A Case Report and Literature Review

**William V. Harrer, M.D.,  
Thomas H. Sprague, M.S.  
and Francis X. Keeley, M.D./Camden**

Benign squamous cell papilloma of the esophagus is an uncommon entity. The first surgically resected case was reported by Adler,<sup>1</sup> *et al.* (1959). The second case was recently reported by Kostainen<sup>2</sup> (1973). The purpose of this report is to present an additional case of a successful surgical removal of a benign squamous papilloma of the esophagus.

#### Case Report

A 53-year-old male was admitted with a history of intermittent ulcer disease since 1939. Five weeks prior to admission he developed severe subxiphoid pain after lifting heavy materials at home. The pain lasted five days and was gradually relieved by atropine. He denied dyspnea but noted that the pain intensified upon lying down and was relieved somewhat by sitting up. Physical examination was unremarkable. Two upper GI x-ray series, two weeks apart, revealed a one centimeter filling defect on the posterior wall of the distal esophagus. (Figure 1.) Other findings included a hiatal hernia pouch, a marked duodenal antrum deformity consistent with a healed ulcer and

a double barium density in the gastric prepyloric area or on the lesser curvature suspected of being a possible ulcer. An ill-defined area of increased density was noted in the chest x-ray in the periphery of the left mid-lung field. Gastroesophagoscopy revealed a superficial ulcer in the distal gastric antrum and a polyp in the esophagus near the gastroesophageal junction. Biopsy of the polyp revealed a squamous cell papilloma of the esophagus. Cytology of gastric aspirate showed squamous cells without tumor cells and without atypia. (Figure 2.) On May 6, 1971, the pa-

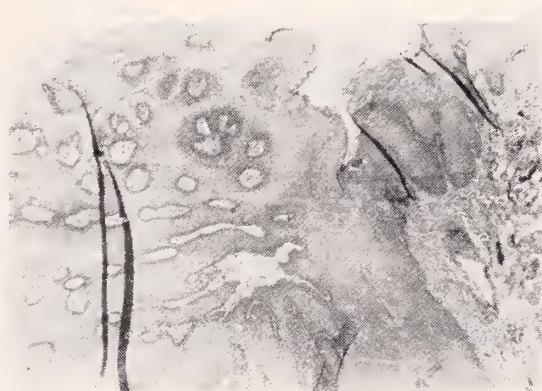


Figure 2—H and E 35x benign squamous cell papilloma without squamous cell atypism and with fibrovascular subepithelial cores.

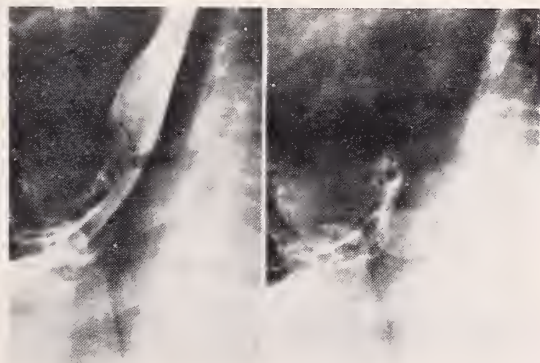


Figure 1—Roentgenogram demonstrates 1 cm. filling defect on the posterior wall of the distal esophagus

tient underwent esophageal polypectomy, bilateral vagotomy, pleural biopsy, and hemigastrectomy. The post-surgical diagnoses were: squamous cell papilloma of the esophagus, chronic pleuritis with hyalinization and chronic gastritis with no ulcers. On gross examination the esophageal polyp was a single piece of firm pink tissue which appeared sessile and measured 6mm. in diameter. (Figure 3). Microscopically, the esophageal lesion had a central fibrous vascular core which was thrown into numerous finger-like projections and was completely covered by hypertrophic squamous epithelium. There was neither invasion nor other indication of malignant activity.

\* This work is from Our Lady of Lourdes Hospital, Camden, New Jersey, where Dr. Harrer is Director of Laboratories, and Dr. Keeley is Chief of the Department of Medicine. They are, respectively, Assistant Professor of Pathology and Assistant Professor of Medicine at Jefferson Medical College, where Mr. Sprague is a third-year student.



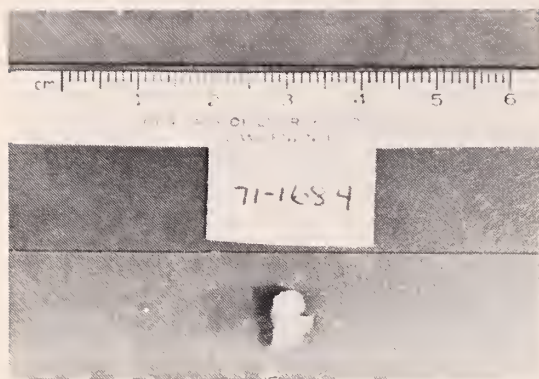


Figure 3—Polypoid esophageal mucosal lesion.

## Discussion

Esophageal squamous papillomas are rare according to autopsy series which have reported on this tumor. Moersch and Harrington<sup>8</sup> reported 44 benign esophageal tumors culled from 7,549 postmortem examinations. This series included three papillomas. Plachta<sup>4</sup> reported on 19,982 autopsies in which there were 99 benign esophageal neoplasms, two of which were papillomas. Attah and Hajdu<sup>5</sup> reviewed 15,454 post mortem examinations and discovered one papilloma out of 29 benign esophageal neoplasms. The prevalence of esophageal papillomas appears to be 14 out of 100,000 in summing these autopsy series.

Unfortunately, these reports lacked histological confirmation. Totten, *et al.*<sup>6</sup> and Stout and Lattes<sup>7</sup> stated that the benign papillomas of the esophagus do not exist. Stout and Lattes<sup>7</sup> interpreted previous reports of papillomas as having been folded and hypertrophied mucosa in response to irritation, inflammation, or granuloma formation. This produced warty protuberances that appeared to be papillomas but in fact lacked the hypertrophied squamous epithelium over multiple finger-like dermal cores. Welch<sup>8</sup> provided descriptive criteria for esophageal lesions.

Adler, *et al.*<sup>1</sup>, presented the first documented case of an esophageal papilloma which was surgically removed. Weitzner and Hentel<sup>9</sup> reported a case found incidentally at autopsy. Finally, Kostainen, *et al.*,<sup>2</sup> reported an additional lesion which was successfully removed antemortem. Table 1 summarizes these cases and the present case.

The data are consistent with findings of esophageal neoplasms in general. This tumor is more frequent in older individuals, especially males, and the distal third is the most common site of tumor involvement. (Terracol and Sweet<sup>10</sup>). The tumor may or may not be

Table 1

Author	Adler, <i>et al.</i>	Weitzner and Hentel	Kostainen, <i>et al.</i>	Present Case
Race	Caucasian	Caucasian	Caucasian	Caucasian
Sex	Male	Male	Male	Male
Portion of Esophagus Involved	distal 1/3	at level of the carina	distal 1/3	distal 1/3
X-Ray Findings	negative	negative	positive	positive
Endoscopy	positive		positive	positive
Biopsy	positive			positive
Symptom Produced	dysphagia	none	dysphagia vomiting	epigastric pain
Associated Disease	hiatal hernia	severe systemic atherosclerosis	Pulmonary TB gastric adenomatous polyp	gastric ulcer
Follow-up	no recurrence 3 mo. post op.		no recurrence 3 yrs. post op.	no recur. 2 yr. post op.

evident roentgenographically, but will be found by esophagoscopy. Biopsy may lead to erroneous diagnosis as described by Adler, *et al.*<sup>1</sup> They describe five cases of squamous cell carcinoma of the esophagus in which the biopsies were diagnosed as benign papilloma. To avoid this, the entire lesion should be removed for definitive diagnosis. The symptoms produced by papillomas are apparently no different from that produced by other esophageal tumors. The prognosis is good since adequate extirpation prevents recurrence. Schmidt and Lockwood<sup>11</sup> state that all benign growths of the esophagus should be removed as this is the only way to rule out malignancy.

The etiology of esophageal papillomas remains unclear. Such lesions occur in many ungulates and other domesticated animals, and are caused by the bovine papilloma virus (Schmidt<sup>12</sup>, Feldman<sup>13</sup>). Intracellular inclusion bodies are not seen in human esophageal papillomas, but the viral role cannot be completely discarded. Chronic irritation is another possible etiology. Hunt<sup>14</sup> described a case in a 70-year-old woman who passed a bougie and lavaged her stomach daily for 22 years. Eventually, esophagoscopy revealed marked ulceration of the esophagus with multiple wart-like tumors in the distal portion. These tumors were probably the inflammatory reactions described by Stout and Lattes<sup>7</sup> and not neoplasms. Rake<sup>15</sup> believed that food retention and achalasia resulted in papillomas, but these also probably represent cases of irritation and chronic inflammation.

Napalkov and Pozhariski<sup>16</sup> have been able to cause esophageal papillomas in rats by feeding them N-methyl-N-nitrosoamline. The lesions developed from diffuse acanthosis with hypertrophy beneath leading to verrucous lesions which they called leukokeratosis. This work possibly gives the best clue to the etiology of papillomas, i.e., irritants in food are prolonged in their passage through the esophagus due to some other gastro-intestinal difficulty (e.g. achalasia, vomiting, hiatal hernia) and this leads to a focal reaction which results in a papilloma.

Another question with benign esophageal papillomas is their potential for malignancy. The malignant degeneration of squamous papillomas at other sites is well known. Toso<sup>17</sup> relates a laryngeal carcinoma that developed from an epithelial papilloma. Meyerowitz and Shea<sup>18</sup> believe that verrucous carcinoma of the esophagus develops from a premalignant lesion. Minielly, *et al.*,<sup>19</sup> reported five cases of verrucous carcinoma of the esophagus, but could not find any papillomatous precursors as the cancers were too far advanced. Other authors entertain the possibility of malignant transformation. Terracol and Sweet<sup>10</sup> stated that papillomas do undergo malignant transformation to adenoacanthomas. Napalkov and Pozharski<sup>16</sup> observed malignant transformation of their experimentally-induced papillomas in rats. They believed that human cancers developed from such pre-malignant states as leukoplakia and papilloma.

The overall incidental finding of benign papillomas at postmortem examination is so low that this could not possibly account for all squamous cell carcinomas of the esophagus or even those of the verrucous pattern. However, since the malignant transformation has been documented in similar lesions in other locations and in experimentally-induced esophageal lesions, the possibility cannot be ruled out at present.

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Our Lady of Lourdes Hospital

(continued from page 219)

definitely have a complete eye examination before entering school. Some 568,000 children, age three to five (or one in 20) are affected by vision problems. Certain conditions, such as amblyopia (lazy eye), must be diagnosed early if treatment is to be effective. An estimated 12,-748,000 school children are in need of some form of eye care. School vision screening, preschool vision screening, and the Home Eye Test, are NSPB programs keyed to identifying children in need of a professional eye examination as early as possible.

*Eye Safety* — During the past year an estimated 168,300 school children in the U.S. suffered eye injuries of varying degrees of severity. Thirty-five states in the U.S. have passed school eye-safety laws, based on NSPB's model legislation, requiring all students, teachers, and visitors in schools and colleges to wear appropriate eye protection in laboratories and workshops.

An estimated 41 percent of visual impairments due to injuries occur in the home. Among the causes, caustic alkalis and acids such as those

contained in household cleaning products can cause chemical burns to the eye — in the case of aerosols, compounded by the force of contact. If eye contact occurs, flood the eye immediately with water, continuing for at least 15 minutes, then see a doctor.

If a foreign object penetrates the eye, do not try to pull it out. Bandage the eye lightly and see a doctor.

Industry is hit by an estimated 1,000 eye injuries every working day of the year. With proper protective eyewear, 90 percent of these injuries could be prevented.

The Wise Owl Club of America, the eye-safety incentive program of the NSPB, awards membership to industrial employees and students whose eyesight has been saved by wearing eye protection at the time of a potentially blinding accident. There are to date 7,532 Wise Owl Club chapters in the U.S., with more than 55,730 members.

Prepared by the National Society for the Prevention of Blindness, Inc., New York City.



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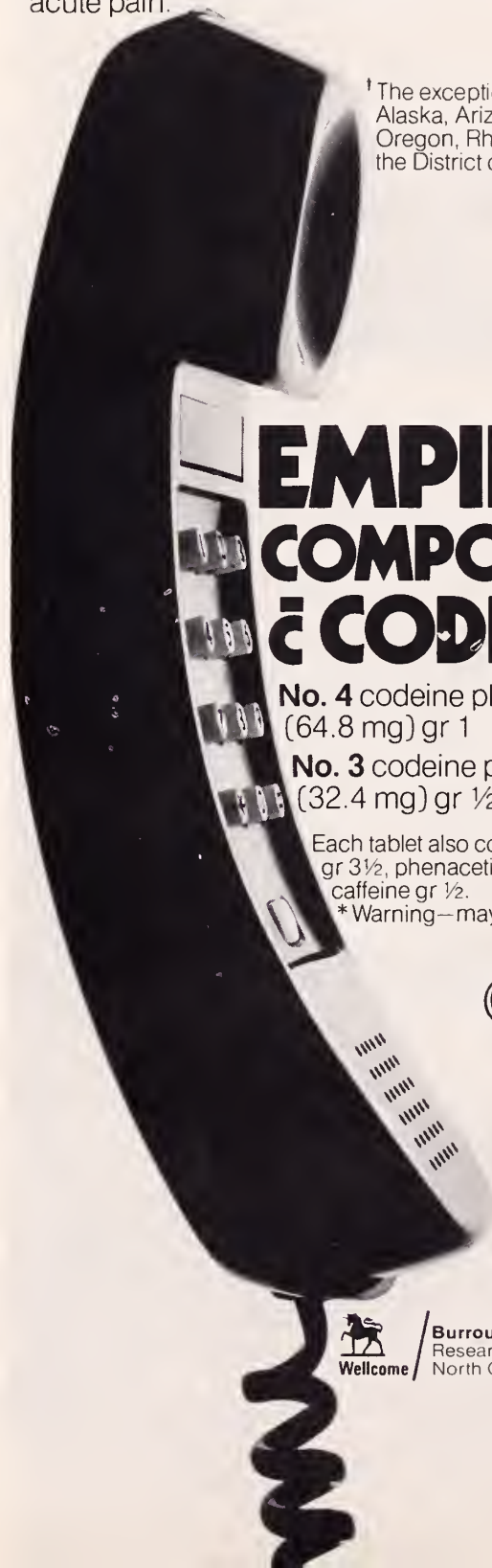
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**Precautions:** Use with caution in patients with glaucoma. Hepatic hypersensitivity has been reported with gastrointestinal symptoms, jaundice, eosinophilia and altered liver function tests. Discontinue drug if these occur.

The safety of ethaverine hydrochloride during pregnancy or lactation has not been established; therefore it should not be used in pregnant women or in women of childbearing age unless, in the judgment of the physician, its use is deemed essential to the welfare of the patient.

**Adverse Reactions:** Although occurring rarely, the reported side effects of ethaverine include nausea, abdominal distress, hypotension, anorexia, constipation or diarrhea, skin rash, malaise, drowsiness, vertigo, sweating, and headache.

**Dosage and Administration:** One capsule three times a day.

**How Supplied:** 100 mg capsules in bottles of 50 and 500.

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# NEW JERSEY DOCTORS' NOTEBOOK

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## Trustees' Minutes

January 19, 1975

A regular meeting of the Board of Trustees was held on January 19, 1975, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

*Executive Committee Meeting with Governor Byrne . . .* Received as informative the report of a meeting between the Executive Committee and Governor Byrne which elicited the following: (1) the Governor's Conference on Health Care Delivery will be held in conjunction with the 1975 annual meeting, (b) Governor Byrne has accepted MSNJ's invitation to deliver the keynote address on Saturday, May 31, 1975, (c) MSNJ will cooperate with the Governor's administration by way of better communication in discussion of health issues, (d) the Governor was apprised of MSNJ's Medicaid Peer Review Committee to act upon inquiries or complaints with the Medicaid administration, and (e) the Governor was informed of the newly formed MSNJ Ad Hoc Committee on Blood Banking which is charged with the development of a unified and functional blood collection and storage program in New Jersey.

*Dairy Food and Nutrition Council of New Jersey . . .* Concurred in the President's action in appointing Howard N. Jacobson, M.D., to serve as MSNJ's representative on the Dairy Food and Nutrition Council of New Jersey.

*Testimonial for William J. Dougherty, M.D. . . .* Approved recommendations that the Board of Trustees designate official representatives to attend a testimonial dinner for Wm. J. Dougherty, M.D., retired Deputy Commissioner of Health, and that the Board of Trustees present a suitably inscribed certificate of appreciation to Dr. Dougherty at the rescheduled dinner on February 28, 1975.

*New Jersey Health Sciences Group . . .* Directed that MSNJ membership in the New Jersey Health Sciences Group be approved.

*Annual Reports . . .* Referred the following as a resolution from the Board of Trustees to the 1975 House of Delegates:

That only those reports required by the Constitution and Bylaws, those requesting action of the House, and those requested by the House for report back be distributed for consideration at annual meetings.

*Committee on Constitution and Bylaws . . .* Directed that the following recommendations be referred to the Committee on Long Range Planning and Development:

(1) That the Committee on Long Range Planning and Development be charged to study, evaluate, and suggest amendments to the MSNJ Committee on Constitution and Bylaws in order to effect a concise, viable, and responsive organizational document.

(2) That the Committee on Long Range Planning and Development submit its final report to the Board of Trustees not later than September 8, 1975.

*Note:* Perusal of the organizational documents of MSNJ indicate that they are overly prolix, unduly rigid, and resistant to change. Currently, the Standing Committee on Constitution and Bylaws cannot initiate change or recommendations for change, but can only act as draftsman and commentator on specific proposals presented to it. Such a posture does not service our membership and the entire area should have in-depth and thoughtful study.

*Congress on Medical Education (AMA) . . .* Authorized the attendance (with expenses paid) of Louis F. Albright, M.D. (a candidate for membership on the AMA Council on Medical Education) at the 71st Annual Congress on Medical Education, January 31 to February 2, 1975 in Chicago.

*Annual Meeting . . .* Noted that, because of delay in the opening of the new Hyatt House in Cherry Hill, the headquarters hotel for the 1975 annual meeting will be the Cherry Hill Inn.

. . . Agreed that the decision concerning the entertainment package for the 1975 annual meeting may be made by the Committee on Annual Meeting.



*Malpractice in New Jersey* . . . Directed that the Executive Director disseminate the following information on recent developments in the area of malpractice in New Jersey to the presidents of county medical societies:

The Commissioner of Insurance of New Jersey has indicated that there is a malpractice crisis in this State, and that there is a possibility he will create a professional liability insurance facility. It appears that if this becomes fact the State will take over the underwriting and management of professional liability insurance. The New Jersey Hospital Association shares MSNJ's concern over such a development. MSNJ's professional liability insurance carrier has stated that it will oppose this concept and should the Commissioner's suggestion prevail may withdraw from this field of insurance.

*New Jersey Association of Osteopathic Physicians and Surgeons* . . . Approved the following recommendation from the Council on Legislation:

That the Board of Trustees authorize the Council on Legislation to invite a member of the New Jersey Association of Osteopathic Physicians and Surgeons to attend its meetings.

*Current State Legislation* . . . Approved the recommended positions on the following bills of medical import with the exception of A-1619 and A-2208, as indicated:

- S-350 — To require psychological examinations before persons are appointed to a police department. *ACTION DEFERRED*, pending an opinion from the Council on Mental Health.
- S-546 — To provide that any condition of impairment of health to a uniformed member of a paid fire department caused by hypertension, heart disease, or tuberculosis, shall be deemed to be an occupational disease. *DISAPPROVED*, because this bill involves diagnosis by a legislative enactment rather than by medical investigation.
- S-971 — To provide that a teaching staff member shall not be required to disclose information received from a pupil which concerns alcohol or drug abuse. *NO ACTION*
- S-1032 — To establish a Mental Treatment Standards Committee and Patient Treatment Review Board in the Department of Institutions and Agencies. *APPROVED*
- S-1033 — To provide for the employment of patients in facilities for the mentally ill and in State and county residential services for the mentally retarded. *APPROVED*
- S-1034 — To provide that the Department of Institutions and Agencies shall establish a method for determining ability to pay for services for the mentally ill and the commitment of the mentally ill and to provide that the Department in cooperation with the county adjuster shall arrange for commitment hearings. *APPROVED*

- S-1074 — To establish a Department of Mental Health in the Executive branch of government. *APPROVED*
- S-1077 — To require prescription blanks for prescriptions for controlled dangerous substances to be serially numbered with the name of the prescriber printed immediately preceding the number. *ACTION DEFERRED*, pending a conference with the sponsor of the bill and further information from the Division of Narcotic and Drug Abuse of the Department of Health.
- S-1084 — To regulate the practice of dentistry and dental hygiene. *APPROVED*
- S-1115 — To provide for a new definition of criminal responsibility to replace the McNaughton test and to provide for the disposition of those persons criminally irresponsible. *APPROVED*
- S-1117 — To delineate the basic rights of persons confined because of mental illness or retardation. *ACTION DEFERRED*, pending further information from the Council on Mental Health.
- S-1118 — To provide for individual attention to patients confined for mental illness and to establish a judicial review for persons confined beyond 31 days and to provide for legal counsel. *ACTION DEFERRED*, pending further information from the Council on Mental Health.
- S-1119 — To direct the Department of Institutions and Agencies to provide for the establishment of emergency mental health services. *ACTION DEFERRED*, pending further information from the Council on Mental Health.
- S-1127 — To provide for the establishment of medical and dental education programs by the College of Medicine and Dentistry of New Jersey. *ACTION DEFERRED*, pending further information from the Committee on Medical Education and anticipated amendments to the bill.
- S-1167 — To include nursing homes and convalescent homes as health care facilities. *NO ACTION*
- S-1201 — To permit employers engaged in the manufacture, delivery, distribution, transportation of controlled dangerous substances or any firearm to require lie detector tests of their employees. *NO ACTION*
- S-1210 — To provide for licensing of social workers. *ACTION DEFERRED*, pending further information from the Council on Mental Health.
- S-1214 — To amend and supplement the act providing for registration of physical therapists. *ACTION DEFERRED*, pending discussion with the sponsor and the New Jersey Society of Physical Medicine and Rehabilitation.
- S-1220 — To require separation of newspapers from other waste for collection and to authorize the Commissioner of Environmental Protection to prescribe standards for storage and disposal of solid waste for recycling, reprocessing and recovery of newspapers. *NO ACTION*

- S-1226 — To permit the courts to require medical or psychiatric treatment or term of imprisonment of up to 3 months for a second offense for operating a motor vehicle while under the influence of alcohol. *APPROVED*
- S-1233 — To bring the Medical Assistance and Health Services Act into conformity with changes necessitated by the State take-over of administration of public assistance programs. *APPROVED*
- S-1248 — To exclude State owned or controlled facilities from the coverage of the Health Care Facilities Financing Authority Law. *APPROVED*
- S-1284 — To create a commission to study and evaluate the State's institutions, agencies, and services for the mentally ill and to appropriate \$25,000. *DISAPPROVED*, because an existing study is currently under way.
- S-1288 — To provide that any duly incorporated association, organization, league, society, or other group created for the purpose of protecting dumb animals shall have the same rights, powers, and privileges as are vested in the New Jersey Society for Prevention of Cruelty to Animals. *DISAPPROVED*, because there is no evidence that existing statutes protecting dumb animals from cruelty are now being flagrantly violated or that the SPCA has failed — or is failing — to perform its responsibilities in enforcing those laws.
- S-1306 — To provide that it shall be unlawful to sell any living or dead human fetus or for any person to purchase, acquire or use such fetus for experimental, research, or transplant purposes. *ACTION DEFERRED*, pending conference with the sponsor of the bill.
- S-1310 — To authorize the Commissioner of Institutions and Agencies to participate with the United States Secretary of Health, Education, and Welfare in waiving medicaid eligibility requirements and to provide benefits to individuals or groups for whom Federal funding could not be obtained and to delete "under general policies established by the State Board of Control." *NO ACTION*. LAW 1974, Chapter 140.
- S-1320 — To provide that the procuring, furnishing, donating, processing, and distributing of human organs shall not give rise to any implied warranty and the doctrine of strict tort liability shall not be applicable in any civil action brought in connection therewith. *ACTIVE SUPPORT*
- S-1326 — To provide for the rehabilitation or liquidation of impaired or insolvent insurers. *NO ACTION*
- S-1373 — To appropriate \$5,000 to the Commission to Study Drug Laws, Penalties and Treatment Programs in contemplation of beginning research into its second report. *NO ACTION*
- S-1387 — To permit patients in nursing or convalescent homes to obtain drugs from a source other than said home. *APPROVED*
- S-1392 — To supplement the "Medical and Dental Education Act of 1970." *NO ACTION*
- S-1407 — To provide for the involuntary commitment of persons believed to be mentally ill. *ACTION DEFERRED*, pending further information from the Council on Mental Health.
- S-1421 — To authorize counties and municipalities to make appropriations to organizations for emotionally or physically undernourished children. *APPROVED*
- S-1422 — To regulate referrals to health care facilities. *APPROVED*
- S-1428 — To regulate long term health care facilities licensed under the Health Care Facilities Planning Act. *ACTION DEFERRED*, pending further information from the Department of Health.
- S-1438 — To appropriate \$500,000 to the Department of Health for hemophilia purposes. *APPROVED*
- S-1442 — To exempt registered pharmacists 65 years of age or older from the requirements of the "Continuing Pharmaceutical Education Act." *DISAPPROVED*, because anyone actively involved in dispensing medication or treatment must be current in the practice of their profession.
- S-1461 — To reduce penalties for possession and use of small amounts of marihuana and hashish. *NO ACTION*
- S-1483 — To authorize the expenditure of funds for the establishment and maintenance of eye bank facilities and to appropriate \$25,000 for entering into agreements with the New Jersey Eye Bank at the Newark City Hospital. *ACTION DEFERRED*, until a copy of the bill is available for comment by the Academy of Ophthalmology and Otolaryngology.
- A-588 — To provide for an examination of members of the police department before appointment thereto by a licensed practicing psychologist or psychiatrist. *ACTION DEFERRED*, pending an opinion from the Council on Mental Health.
- A-1529 — To provide that no person having jurisdiction over potable water shall direct mandatory fluoridation until the question has been first approved by voters in a referendum. *DISAPPROVED*, because MSNJ is in favor of mandatory fluoridation as a public health measure.
- A-1543 — To prescribe what is a justifiable abortion and to permit physicians, medical personnel and private institutions to refuse to perform an abortion. *APPROVED*
- A-1551 — To prohibit podiatrists, optometrists or psychologists from charging patients an extra fee for completing a medical claim form for health insurance. *NO ACTION*

- A-1552 — To require physicians to obtain professional liability insurance with minimum coverage of \$100,000 as a prerequisite to being licensed. *DISAPPROVED*, because there is no guarantee that a physician could get insurance and the lack of said insurance should not, in any way, put his license in jeopardy, also the bill would be a deterrent to any physician considering residency in New Jersey. The legislation is restrictive, impractical and has no bearing on the qualifications of the physician.
- A-1583 — To require health care facilities to provide information to persons who need such for obtaining health insurance or receipt of health insurance benefits. *ACTION DEFERRED*, pending a conference with the sponsors of the bill.
- A-1618 — To require itemization and verification of medical bills, ban contingent fee arrangements and limit two-tier billing by physicians and surgeons. *APPROVED*
- A-1619 — To provide that any person who knowingly employs an unlicensed x-ray technician shall be guilty of a misdemeanor.
- Note:* The Board disapproved the Council's recommendation of "no action" and directed that the bill be referred back to the Council on Legislation and urged that a position of "approved" be recommended.
- A-1620 — To provide that it shall be a misdemeanor for any physician or surgeon to intentionally falsify any medical report used in workmen's compensation, negligence cases or any other type of legal proceeding. *APPROVED*
- A-1632 — To provide for health insurance for seasonal farmworkers. *NO ACTION*
- A-1681 — To define conditions under which optometrists shall advise patients to confer with an ophthalmologist. *ACTION DEFERRED*, pending a report of the special ad hoc committee, consisting of an internist, a member of the Council on Legislation and a representative of the Academy of Ophthalmology and Otolaryngology chosen to redraft this legislation or properly amend it.
- A-1703 — To permit employees of municipal institutions holding the degree of M.D. or D.O. to apply to the Board of Medical Examiners for exemption from the act concerning the practice of medicine and surgery. *DISAPPROVED*, because MSNJ feels that it is contrary to the public interest to entrust patients to the care of unlicensed physicians other than interns and residents in approved training programs.
- A-1710 — To redefine various terms with respect to the practice of nursing. *NO ACTION*
- A-1727 — To require medical facilities, public or private schools, state, county, or municipal health and welfare departments, higher education medical facility or other instrumentality to make available birth control information, family planning services and medically acceptable contraceptives and permits refusal to provide such information without being held liable for refusal. *DISAPPROVED*, because the cooperation of parents and educators should be voluntarily encouraged rather than mandated.
- A-1734 — To give minors access to birth control or contraceptive procedures and to prohibit permanent sterilization procedures without the consent of the parent or guardian. *APPROVED*
- A-1760 — To increase to \$10,000 from \$5,000 the amount of money freeholders may appropriate for children afflicted with sickle cell anemia. *APPROVED*
- A-1767 — To prohibit practitioners from dispensing methadone without approval of the Commissioner of Health after first informing him of the name of the individual to be treated and amount of methadone to be dispensed. *DISAPPROVED*, because the purpose of this bill is already superseded by Federal Legislation.
- A-1770 — To require the Commissioner of Health to issue a Sanitary Inspector 2nd Grade license to any person who has experience as a sanitary inspector, has a required Public Health certificate, plus a certificate in water purification notwithstanding he has not completed a formal course in biology or physical science. *DISAPPROVED*, because this bill lowers the standards of public health.
- A-1780 — To prohibit smoking in any hospital patient room or patient area, elevator, indoor theater, library, art museum, concert hall, school building, school athletic facility or bus except in areas designated as smoking areas. *NO ACTION*
- A-1786 — To require health care facilities to designate not less than 30% nor more than 50% of the total number of patient rooms as "No Smoking Allowed" rooms. *DISAPPROVED*, because such a system would present burdensome administrative problems for health facilities.
- A-1792 — To provide that no new solid waste facility shall be constructed within 1,000 feet of any residence; to require inspections of every solid waste facility by the Department of Environmental Protection at least 4 times a year and to appropriate \$50,000 for hiring inspecting personnel. *NO ACTION*
- A-1914 — To lower the age requirement for the education of handicapped children from 5 to 3 years of age. *APPROVED*
- A-1919 — To provide transportation for handicapped children going to and from any remote school other than a public school, except a school operated for profit, located in the State not more than 20 miles from the residence of the child. *APPROVED*
- A-1952 — To require the inclusion of treatment for alcoholism in all group health, medical, and hospitalization insurance plans issued or renewed in New Jersey. *APPROVED*
- A-2023 — To amend the "New Jersey Medical Assistance and Health Services Act." *NO ACTION*



- A-2060 — Imposes the sales tax on all professional services. *DISAPPROVED, ACTIVE OPPOSITION, IF THE BILL MOVES*, because the passage of this bill would sharply increase the cost of medical care.
- A-2086 — To establish qualifications for laboratory directors under the Bio-Analytical Laboratory and Laboratory Directors Act in conformity with the Federal standards for such directors in Title 20, Chapter 3, Part 405 of the code of Federal regulations. *ACTION DEFERRED*, pending further information from the New Jersey Society of Pathologists.
- A-2112 — To remove the licensing requirement for ophthalmic technicians. *APPROVED*
- A-2123 — To extend the implied consent law concerning motor vehicle violations to the taking of urine and blood samples to determine if the operator of a motor vehicle is under the influence of controlled dangerous substances. *APPROVED*
- A-2158 — To permit employment on a salary basis by municipal hospitals of physicians who do not hold New Jersey licenses. *DISAPPROVED*, because MSNJ feels that it is contrary to the public interest to entrust patients to the care of unlicensed physicians other than interns and residents in approved training programs.
- A-2160 — To require law enforcement officers, when arresting a person not in control of his physical functions, to determine whether the person is wearing a medical alert device specifically delineating a medical disability and to require immediate medical aid. *APPROVED*
- A-2172 — To exempt hypodermic needles and syringes sold pursuant to a doctor's prescription from the Sales and Use Tax Act. *APPROVED*
- A-2205 — To prohibit a physician or surgeon to enter into a contingent fee arrangement in any matter where medical treatment or services are rendered to form any basis of a legal claim for damages or workmen's compensation. *APPROVED*
- A-2206 — To require insurance companies to file a report with the Secretary of State of amounts paid to physicians and to provide for penalties. *NO ACTION*
- A-2207 — To provide that it shall be a misdemeanor for a physician to charge fees excessively higher than the normal patient fees for services in workmen's compensation or negligence action claims. *APPROVED*
- A-2208 — To provide that it shall be a misdemeanor to employ an unlicensed x-ray technician.  
*Note:* The Board disapproved the Council's recommendation of "no action" and directed that the bill be referred back to the Council on Legislation and urged that a position of "approved" be recommended.
- A-2209 — To provide that it shall be a misdemeanor for any physician or surgeon to execute a false medical report which is subsequently submitted to any judicial or administrative proceeding. *APPROVED*
- A-2210 — To require physicians and surgeons to provide patients with a true, accurate and itemized copy of the bill for treatment rendered where it will be the basis of a legal claim for workmen's compensation or damages in negligence. *NO ACTION*
- A-2234 — To increase the amount of the fine which may be imposed in convictions for drunken and impaired driving. *NO ACTION*
- A-2246 — To require that privately owned buildings, open to the public, have proper access and facilities for the handicapped. *NO ACTION*
- A-2247 — To provide medical study scholarships for students agreeing to practice medicine in areas designated as having a shortage of physicians. *APPROVED*
- A-2259 — To provide immunity to civil defense units, volunteer fire companies, volunteer first aid, rescue or emergency squads from liability in any civil action to respond in damages for any acts arising out of services. *APPROVED*
- A-2285 — To appropriate \$500,000 to the Department of Health for the treatment of hemophilia. *APPROVED*
- A-2301 — To require every restaurant and temporary retail food establishment to have a Department of Health approved device upon the premises intended for use in removing food which becomes lodged in a person's throat. *DISAPPROVED*, because there are alternate methods for this procedure, other than the use of surgical instruments.
- A-2313 — To permit the Board of Higher Education to award not more than \$6,000 per annum per student to all accredited schools of veterinary medicine which accept New Jersey residents in their degree programs. *ACTION DEFERRED*, pending information from the New Jersey Veterinary Association.
- A-2324 — To require employers to have a first aid kit as prescribed by the Commissioner of Health readily accessible for the treatment of injured persons. *ACTION DEFERRED*, pending information from MSNJ's Committee on Emergency Medical Care and the Department of Health.
- A-2329 — To provide for annual licensure of all clinical laboratories based on demonstrated ability to meet standards of performance of services offered which are accepted and approved by the Department of Health and to initiate a program of education and training, to appropriate \$150,000. *DISAPPROVED*, because of recent amendment to the law (Dec. 18, 1973).
- A-2347 — To permit a municipality to contribute \$25,000 to first aid and/or emergency or volunteer ambulance or rescue squads. *APPROVED*

*To be noted and filed:*

S-1382 — To make appropriations to certain narcotic and drug abuse treatment centers. LAW 1974, Chapter 120

S-1466 — To empower the State Health Benefits Commission to authorize the purchase of a contract for health care benefits agreed to under a duly executed collective negotiations agreement.

A-1776 — To permit the Jersey City Medical Center, Jersey City, to use \$500,000 allocated to it to meet the costs of combined operations and a general upgrading of services on effectuation of a merger with the Margaret Hague Hospital. LAW 1974, Chapter 75

A-1815 — Amends the "Sales and Use Tax Act" (P.L. 1966, c. 30) to impose a sales tax on certain professional services.

A-1841 — To appropriate \$15,000 to the Department of Health for operation of the narcotic drug addiction rehabilitation program carried on at Odyssey House, Newark. LAW 1974, Chapter 41

AJR-32 — To create a commission to study proposals and methods for providing a New Jersey veterinary medical education.

*Controlled Dangerous Substances Registration* . . . Voted to table a recommendation from the Monmouth County Medical Society that would seek repeal of controlled dangerous substances registration in New Jersey as a "wasteful, bureaucratic duplication of the federal registration," pending investigation to determine if discontinuance of registration for controlled dangerous substances in New Jersey is legally possible because of federal statutes.

. . . Directed that the Monmouth County Medical Society be informed of the above.

*Medical Audit Team Seminar* . . . Agreed to cosponsor with the Hospital Research and Educational Trust a medical audit team seminar to be offered in New Jersey March 18 and 19 and conducted by staff of the Joint Commission on Accreditation of Hospitals. The program has been approved for 12½ AMA Category I credit hours.

*HRET Board of Directors* . . . Authorized the appointment of James A. Rogers, M.D., to the Board of Directors of HRET, upon request of HRET.

*New Jersey Hospital Association* . . . Received

as informative a report from MSNJ's liaison representative (J. S. Madara, M.D.) to the New Jersey Hospital Association, the highlights of which are as follows:

(a) Approved nomination of Jack W. Owen as representative of NJHA to attend monthly meetings of the Board of Trustees of MSNJ.

(b) There was a long discussion of the last two meetings of the Health Care Administrative Board.

(c) There was a longer discussion of the difficulty obtaining malpractice coverage. It was recommended that this topic be placed on the agenda of the combined Executive Committee meetings on Tuesday, January 21, 1975.

(d) Reaffirmed support of A-1257, permitting pharmacists to substitute brand-named drugs with the consent of the doctor.

(e) Voted to support A-2208, "prohibiting the employment of an unlicensed x-ray technician knowingly or negligently" if the last two words (or negligently) are deleted.

(f) Voted to support A-2209 and A-2210, requiring physicians and surgeons to execute true reports in workmen's compensation cases, and to provide patients with a true, accurate, itemized and signed copy of their bill.

(g) Voted to oppose S-1422, regulating referrals of persons to certain health care facilities.

(h) Dr. James A. Rogers is being invited to represent MSNJ at the Board meetings of the Hospital Research and Educational Trust of New Jersey.

*American Hospital Association* . . . Received as informative a report from MSNJ's liaison representative (J. S. Madara, M.D.) to the Regional Advisory Board of the American Hospital Association, the highlights of which are as follows:

(a) Voted to recommend reconsideration of the American Hospital Association policy pertaining to employed physicians with both medical and administrative responsibilities (this policy states that controversies in this regard should be referred to a joint conference committee of medical staff and board of trustees for consideration as to the proper area of disposition, whether medical or administrative). Dr. Madara agreed with this policy and voted not to reconsider, along with the Chairman of the Hospital Association of Pennsylvania.

(b) Received the new Guidelines for Implementation of Certification of Need for Health Care Facilities and Services approved by the Board of Trustees in November, 1974, which added the following under Scope of Coverage: "referral laboratories, radiation therapy facilities, renal dialysis units, alcohol and drug treatment units, and other specialized facilities." It further states (new addition indicated by italics): "The process should not include practitioners of the healing arts singly or in groups in the conduct of their profession or vocation independently of a health care facility, except for those facilities that are more typically found in institutional settings than in physician's office."

(c) Held an open discussion of medical malpractice coverage, which began at lunchtime with the almost unbelievable story of a 21-year old patient in Pittsburgh who was operated on by a 72-year old surgeon and ended up with loss of his penis. Our malpractice problems in New Jersey are shared by Pennsylvania, but miniscule compared to those in New York.

*Hospital for Chest Diseases at Glen Gardner . . .*  
Agreed to the request of the New Jersey Health Officers' Association to make known to our members and urge their support of the concept that the proposed closing of the Hospital for Chest Diseases at Glen Gardner not be precipitous but planned in order to ensure the proper in-and outpatient care for those patients currently at Glen Gardner.

**Annual Meeting  
Hotel Reservations**

Advance hotel reservations for the 209th Annual Meeting, MSNJ, may be made by completing and mailing the application below, or the one included with the Advance Program sent to you last week. Inquiries should be directed to Mrs. Marion Walton, Convention Manager, MSNJ, P.O. Box 904, Trenton 08605.

**209th Annual Meeting  
The Medical Society of New Jersey  
May 31 - June 3, 1975  
Housing Application**

	Daily Rates			
	Single	Twin	Parlor and 1 Bedroom	Parlor and 2 Bedrooms
Cherry Hill Inn (Headquarters)	\$20	\$30	\$65	\$93
Ramada Inn	\$20	\$30	\$59	\$93
Rickshaw Inn	\$20	\$28	\$64	\$102 (suite)
Country Squire	\$18	\$26	\$51	\$77
Sheraton Poste	\$24	\$30	\$60	—
Monticello Motor Lodge	\$18	\$24	\$40	\$60
Howard Johnson Motor Lodge	\$19	\$27	\$50	\$77

Mail this application to: The Medical Society of New Jersey  
P. O. Box 904, Trenton, N. J. 08605  
Attention: Mrs. Marion R. Walton, Convention Manager

Confirmation will come directly from assigned hotel.

1st Choice \_\_\_\_\_ 2nd \_\_\_\_\_ 3rd \_\_\_\_\_

Accommodations Desired

☐ Single    ☐ Twin    ☐ Suite Parlor & 1 bedroom    ☐ Suite Parlor & 2 bedrooms

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City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Will Arrive \_\_\_\_\_ Time \_\_\_\_\_ Will Depart \_\_\_\_\_ Time \_\_\_\_\_

(date)

(date)



## Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during January 1975:

	1975 January	1974 January
Aseptic meningitis	24	7
Primary encephalitis	5	2
Hepatitis: Total	283	109
Infectious	115	59
Serum	72	24
Unspecified	96	26
Meningococcal meningitis	2	5
Mumps	49	127
German measles	18	13
Measles	41	344
Salmonella	90	112
Shigella	46	37
Tuberculosis	89	
Syphilis: Total	51	
Primary	22	
Secondary	29	
Gonorrhea	1038	

### Hepatitis

Viral hepatitis includes Hepatitis A (infectious) and Hepatitis B (serum). Considerable evidence has been amassed concerning the existence of one or more additional agents. Hepatitis A is thought to be spread primarily by fecal-oral contamination while Hepatitis B appears to be spread primarily by parenteral inoculation blood and blood products, contaminated needles, and the like. There is clear evidence for the non-parenteral spread of Hepatitis B as well. While the most common incubation period for Hepatitis A (30-35 days) is considerably shorter than that for Hepatitis B (80-100 days), there is considerable overlap in their ranges and differentiation on the basis of incubation period is unreliable. Prophylaxis with immune serum globulin is effective for Hepatitis A and appears to be of little use in Hepatitis B. Very importantly, antigen testing (HBAG) is available to document infection with the B virus. No serologic test is presently available for clinical use to document infection with the A or other viruses.

The original or first generation test for HBAG was the gel diffusion technique. The second

generation tests are approximately 10 times more sensitive at detecting HBAG. The third generation tests are now considered the only acceptable procedures in New Jersey for the detection of HBAG in blood and blood products. There are two licensed procedures that are recognized as third generation tests. One, an improved radioimmunoassay (RIA) test known as Ausria II, is the most sensitive procedure for HBAG detection and is virtually completely specific. The second is a reverse passive hemagglutination procedure (with purified specific antibody absorbed to the surface of erythrocytes). RIA techniques for HBAG detection are 1000 to 4000 times more sensitive than second generation tests.

Despite the improved sensitivity of the third generation tests, not all units of blood able to cause Hepatitis B infection are discovered. It is estimated that 50 percent of the units able to cause B virus infections are discovered and eliminated from use by utilizing third generation procedures.

Recent studies indicate the presence of a new Hepatitis B associated antigen, the core antigen. The core-anticore system described by Almeida, *et al.*,\* may further aid in elucidating the epidemiology of Hepatitis B. We must now speak of Hepatitis B surface antigen and its related antibody as well as Hepatitis B core antigen and its antibody. Although both relate to Hepatitis B infection, they are completely different antigen-antibody systems. At present our testing deals only with the surface antigen, but much research is presently underway investigating the core-anticore system.

\*Almeida, *et al*: *Lancet* 2:1225-1227, 1971

### Cooper Hospital Alumni

Interest has been expressed in forming an alumni association of the former Cooper Hospital house staff, and it is hoped that an annual meeting can be instituted. Those wishing to participate in such an association are urged to communicate with the Department of Medical Education, (Sherman Garrison, M.D., Director) The Cooper Hospital, Camden 08103.

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stools and lessen the urge. And Donnagel-PG also provides the demulcent-detoxinant effects of kaolin and pectin, plus the antispasmodic benefits of belladonna alkaloids.

"But what I find most impressive is the skillful manner in which A. H. Robins has combined these ingredients with that delicate flavor of vintage bananas. Smashing, absolutely smashing!"

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Atropine sulfate, . . . . .	0.0194 mg.
Hyoscine hydrobromide, . . . . .	0.0065 mg.
Powdered opium, USP . . . . .	24.0 mg.

(equivalent to paregoric 6 ml.)  
(warning, may be habit forming)

Sodium benzoate, . . . . . 60.0 mg.  
(preservative)

Alcohol, 5%

Ⓒ Available on oral prescription or without prescription  
in compliance with applicable state and local law







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Fall and winter coughs are back. Time to help clear the lower respiratory tract with the five Robitussins and Cough Calmers. All contain glyceryl guaiacolate, the efficient expectorant that works systemically to help increase the output of lower respiratory tract fluid. The enhanced flow of less viscid secretions soothes the tracheo-bronchial mucosa, promotes ciliary action, and makes thick, inspissated mucus less viscid and easier to raise. Available on your prescription or recommendation.

*For unproductive coughs*

## ROBITUSSIN<sup>®</sup>

Each 5 cc. contains:

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Alcohol, 3.5%

*For severe coughs*

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Each 5 cc. contains:

Glyceryl guaiacolate ..... 100 mg.  
Codeine phosphate ..... 10.0 mg.  
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*Non-narcotic for 6-8 hr. cough control*

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Each 5 cc. contains:

Glyceryl guaiacolate ..... 100 mg.  
Dextromethorphan hydrobromide ..... 15 mg.  
Alcohol, 1.4%

*Robitussin-DM in solid form for "coughs on the go"*

## COUGH CALMERS<sup>®</sup>

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ROBITUSSIN A-C <sup>®</sup>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
ROBITUSSIN-DM <sup>®</sup>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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# PHYSICIANS SEEKING LOCATION IN NEW JERSEY

*The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.*

**GENERAL PRACTICE** — Chung-Hun Chang, M.D., Sacred Heart Hospital, Norristown, Pa. 19401. Seoul (Korea) 1966. Group or partnership. Available July 1975.

Ping-Fu Tsai, MD., 3207 Walters Lane, Apt. 103, Forestville, Maryland 20028. Kaohsiung Medical College (Taiwan) 1970. Group, partnership, out-patient clinic or emergency room. Available July 1975.

**INTERNAL MEDICINE** — Mohammad A. Khan, M.D., 1175 Mathis Ferry Rd., Apt. 2, Mt. Pleasant, South Carolina 29464. Khyber (Pakistan) 1968. Subspecialty, infectious disease. Group or hospital in small or medium-sized community. Available July 1975.

N. K. Thada, M.D., 1770 Grand Concourse, Apt. 6-F, Bronx, New York 10457. Siriraj (Thailand) 1969. Board certified. Subspecialty, hematology. Solo. Available July 1975.

Arnold M. Rochwarger, M.D., 445 East 68th St., Apt. 8-0, New York 10021. Einstein 1968. Board certified. Subspecialty, gastroenterology. Partnership or group. Available July 1975.

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## Report from the Foundation

**Daniel J. O'Regan, M.D., Medical Director**

As this is written, the next "round" of funding of PSROs by HEW is being anticipated. Estimates are that 25 to 35 new planning PSROs and 30 to 40 new conditional PSROs will be established, for a total of 50 to 60 conditionals in the nation. How many will be established in New Jersey is not known, but it is predicted that not all of our eight areas will obtain money. Meanwhile, the "new" regulations of November 29, 1974 concerning Medicare and Medicaid will have begun to operate. They will require a new utilization review plan to be written by each hospital. The plan is to include: admission certification within one working day, based on the 50th percentile for the diagnosis and age of the patient; extended stay review; and medical care evaluation studies. Regional criteria and standards should be adapted by each hospital's review committees. This program is designed to be integrated eventually with the PSRO system. The AMA's book of criteria, standards, and norms is scheduled to be available in April.

The End Stage Renal Disease (ESRD) program is being implemented. It establishes a network of facilities for renal transplantation and dialysis under Medicare, with the supervision of a statewide Network Coordinating Council, and a Medical Review Board to supervise quality and appropriateness of services. The Medical Review Board's activities are also designed to come under the PSRO's surveillance eventually. It is not unlikely that other long-term disease and disability entities will be organized in a similar fashion.

The National Health Planning and Resources Development Act of 1974 was signed into law on January 4, 1975. This far-reaching measure will affect all facets of medical care. The governor will establish geographic areas within the states (PSRO areas would seem logical), and a statewide Health Coordinating Council would displace RMP, CHP, and Hill-Burton functions.

New Jersey will have a statewide Professional Standards Review Council (PSR Council). The Council will coordinate the activities of the eight PSRO's in our State. The Foundation intends to work closely with this Council.

These trends indicate an increasing role for the State agencies, the Department of Health, and the State government in the supervision of health care. It is important that the practicing physicians of New Jersey have a strong organization to deal with the forces of government. Peer review is a function of physicians, and should be carried out by physicians. We feel that the Foundation, with the support of MSNJ, will continue to represent the physicians of New Jersey in all these aspects. There are many other organizations which are very anxious to "help" us, but we feel that those holding the license to practice medicine and surgery should be able to decide what is necessary and appropriate, and what is quality medical care for their patients.

## Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center of the New Jersey Regional Medical Program and the Brookdale Inter-regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, conjointly compile the information contained in this column each month. The New Jersey component is located at the Valley Hospital in Ridgewood. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Mon-

day through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Following are questions and answers handled by the Center recently.

1. Please supply me with the latest information concerning the carcinogenicity of saccharin.

The National Academy of Sciences/National Research Council (NAS/NRC) has recently, January 9, 1975, completed a study for the Food and Drug Administration on the "Safety of Saccharin and Sodium Saccharin in the Human Diet."<sup>1</sup> The report is available through the National Technical Information Service.\*

Saccharin is presently marketed under an interim order which limits use of the substance. These limitations were imposed by FDA in 1972 after an earlier NAS/NRC panel had concluded: "On the basis of available information, the present and future usage of saccharin in the United States does not pose a hazard." The previous NAS/NRC panel further concluded that in the interest of safety, saccharin use should be limited while additional safety reviews were conducted.

The new study concerning the safety of saccharin was undertaken at the Academy's request in 1972, following reports of bladder tumors in some animals fed saccharin. The study was designed to evaluate the scientific validity of all available laboratory findings. The conclusion of the Academy's Subcommittee is:

"The results of toxicity studies thus far reported have not established conclusively whether saccharin is or is not carcinogenic when administered orally to test animals.

"Though the results of the FDA and WARF (Wisconsin Alumni Research Foundation) studies suggest that under the circumstances of these tests the bladder tumors observed were related to the consumption of the saccharin samples used, they cannot be interpreted as showing that saccharin itself was the cause of the tumors.

"At the same time, because the designs of the many reported negative tests were at fault in not involving *in utero* exposure of the test animals, the results of these tests cannot be interpreted as showing that saccharin is not a bladder tumorigen. The additional difficulty in interpreting the negative results in these studies arises from the relatively small numbers of animals surviving for final examination, a situation that minimizes the possibility of detecting carcinogenic effects of low incidence."

The subcommittee recommended additional studies to resolve the question of carcinogenicity and other safety issues.

FDA is evaluating the report and its recommendations to determine what further tests are needed, and how these tests should be done.

In the interim, saccharin will continue to be marketed under existing limitations as the question concerning carcinogenicity has not been satisfactorily resolved.

\*Copies of the Academy Report, #PB-238137/AS, are available from the NTIS, 5285 Port Royal Road, Springfield, Virginia 22151. Single copies are \$4.75 in printed form, and \$2.25 in microfiche.



## References

<sup>1</sup>Anon.: For immediate release, *HEW News*, January 9, 1975.

2. Do you have any information concerning the use of Human Chorionic Gonadotropin (HCG) for the treatment of obesity?

The use of Human Chorionic Gonadotropin (HCG) in obesity was originally advocated by Simeons.<sup>1</sup> He described a treatment regimen that included: (1) a 500-calorie diet with many foods specifically included or excluded, (2) intramuscular injections of 125 International Units of HCG given six times per week, to a total of 40 injections, (3) day-to-day monitoring of weight changes, and (4) daily patient interviews to discuss progress and problems. Simeons reported an average daily weight loss of 250 to 600 grams in over 500 cases, and claimed particularly that patients did not experience the severe hunger and weakness that were the expected consequences of the 500-calorie diet. He concluded that HCG was beneficial in allowing patients to follow a regimen of severe calorie restriction without discomfort. He also reported a change in fat distribution, with greater loss from the waist and hips than expected.

These claims were based almost entirely upon uncontrolled collections of case reports. Except for the single-blind substitution of saline for HCG in an unstated number of patients for an unstated period of time, Simeons made no attempt to identify and quantitate the role in weight loss of the low-calorie diet, the intramuscular injections, the content of the injection, and the close personal contact with the dieter, all of which were part of the overall method and might have made a contribution to the overall effect of the program.

Craig, *et al.*<sup>2</sup>, randomly and blindly allocated 20 chronically obese women into HCG and placebo groups. A 550-calorie diet was prescribed, but the program of daily discussion with the physician or his assistant was omitted. HCG or placebo was administered six times per week until 40 injections were given, and all patients but one completed the entire study. HCG-treated patients lost an average 6.5 pounds, compared to 8.8 pounds in the control group. The weight losses are smaller than those reported in other studies, perhaps due to the lack of daily professional contact. Nevertheless, treatment and control groups received the same relative lack of attention, and any ability of HCG to promote adherence to the diet by diminishing the sense of hunger should have been manifested by an increased amount of weight lost.

Carne<sup>3</sup> conducted a randomized double-blind trial comparing HCG injections with saline injections. Average weight loss was similar in both groups. In a second study, saline injections were compared with no injections at all. In the latter group, visits to the physician were also less frequent. In the second study, the weight loss was significantly greater in the injection group (22.4 pounds, saline; 17.7 pounds, no injection). Carne concluded that the injection and the frequent physician contact were helpful, but that whether or not there was HCG in the injection made no difference.

Asher and Harper<sup>4</sup> reported on five double-blind studies comparing HCG injections (six per week) with injections of normal saline. Four of the studies, involving 28 patients on HCG and 32 on placebo, were analyzed together and showed no difference in weight loss between the HCG and placebo groups. In the fifth study (consisting of 40 patients), the mean weight loss per patient and the mean loss per injection

were significantly greater for the HCG group than for the saline group. In addition, complaints of hunger were reported to be less frequent in the HCG group.

Beginning February 12, 1975, FDA will require the following statement in the labeling and advertising for all preparations of the hormone as a result of scientific evidence concerning HCG.

"HCG has not been demonstrated to be an effective adjunctive therapy in the treatment of obesity. There is no substantial evidence that it increases weight loss beyond that resulting from calorie restriction, that it causes a more attractive or "normal" distribution of fat, or that it decreases the hunger and discomfort associated with calorie-restricted diets."

## References

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<sup>2</sup>Craig L S, et al: Chorionic gonadotrophin in the treatment of obese women. *Am J Clin Nutr* 12:230-234, 1963.

<sup>3</sup>Carne S: The action of chorionic gonadotrophin in the obese. *Lancet* 2:1282-1284, 1963.

<sup>4</sup>Asher W L and Harper H W: Effect of human chorionic gonadotrophin on weight loss, hunger, and feeling of well-being. *Am J Clin Nutr* 26:211-218, 1973.

3. What information do you have on the use of toluidine blue in screening for vulvar carcinoma?

Richart, in 1963,<sup>1</sup> first described the use of toluidine blue for outlining areas of cervical neoplasia. More recently, Broen, *et al.*<sup>2</sup> reported on the use of toluidine blue for vulvar staining as part of routine family planning and cancer screening examination. Carcinoma *in situ*, severe dysplasia or a lesser degree of atypia was found in six (0.85 percent) of the 698 asymptomatic patients over 45 years of age that were tested.

The procedure used is simple and fast. A one percent solution of toluidine blue, a widely available biological stain, is applied to the vulva and allowed to dry for approximately two minutes. The area is then de-stained by applying a one percent solution of acetic acid. Any area which retains the stain after the application of acetic acid is suspect and requires further evaluation.

Toluidine blue is a nuclear stain and when applied to chronic vulvar lesions will be retained by atypical epithelium which is not covered by a thick layer of keratin. The areas retaining the dye after wiping off with acetic acid have atypical epithelium. The degree of blueness is roughly proportional to the atypicality. Dark blue areas usually will represent cancers and light blue areas lesser degrees of atypicality.<sup>3</sup>

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<sup>2</sup>Broen E M *et al.*: Toluidine blue and colposcopy for screening and delineating vulvar neoplasia. *Amer J Obstet Gynec* 38:775-778 (Nov) 1971.

<sup>3</sup>Hughes R R: *South Med J* 64:1490-1492 (Dec) 1971.



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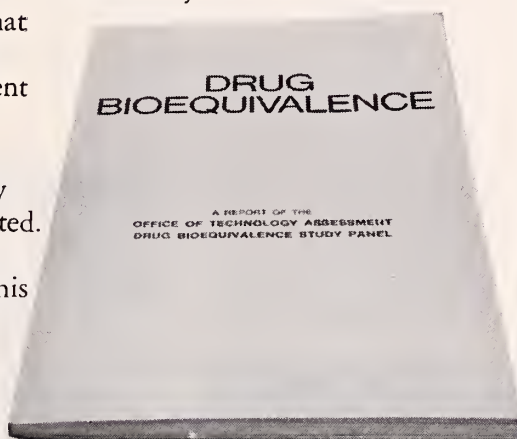
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"...the problem of bioinequivalence in chemically equivalent products is a real one. Since the studies in which lack of bioequivalence was demonstrated involved marketed products that met current compendial standards, these documented instances constitute unequivocal evidence that neither the present standards for testing the finished product nor the specifications for materials, manufacturing process, and controls are adequate to ensure

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\*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D.  
Double-blind study on the treatment of mentally confused patients. Reprinted  
from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

# CLINICAL NOTES

## Rhytidectomy Without Surgery: Chemical Face Peeling

**Edward N. Ludin, M.D. and John L. Krause, Jr., M.D./Cherry Hill\***

During the past ten years we have been very pleased with the results obtained using a non-surgical technique for the removal of *fine* wrinkles of the skin of the face. Prior to the development of this technique, the ability to remove these fine wrinkles has eluded us. The plastic surgeon had to be satisfied with the classical face lift and blepharoplasty surgical procedures. But these techniques for facial rejuvenation have not been sufficient for the improvement of fine wrinkling particularly noticed about the lips, lateral to the outer canthi of the eyes (crow's feet), the nasal root, and the forehead. Though dermabrasion has been used for this purpose, its results have been generally disappointing and comparatively ineffective.

A technique for chemical face peeling was first published in the plastic surgery literature in 1962 by Baker.<sup>1</sup> In 1961 at the annual meeting of the American Society of Plastic and Reconstructive Surgeons, Litton first presented the subject and his work was published later in 1962.<sup>2</sup> Subsequently, many other articles on this subject have appeared in the literature.

### Technique

We use the formula originally described by Baker as follows:

3cc of phenol (liquid USP)  
2cc of water  
2 drops of croton oil  
8 drops of liquid soap

\*Dr. Ludin is Chief Attending Plastic Surgeon and Dr. Krause is Attending Plastic Surgeon at The Cooper Hospital, Camden; West Jersey Hospital, Camden (Berlin and Voorhees); and the Kennedy Memorial Hospital at Stratford.



Figure 1 — Fine wrinkling of the skin of the face

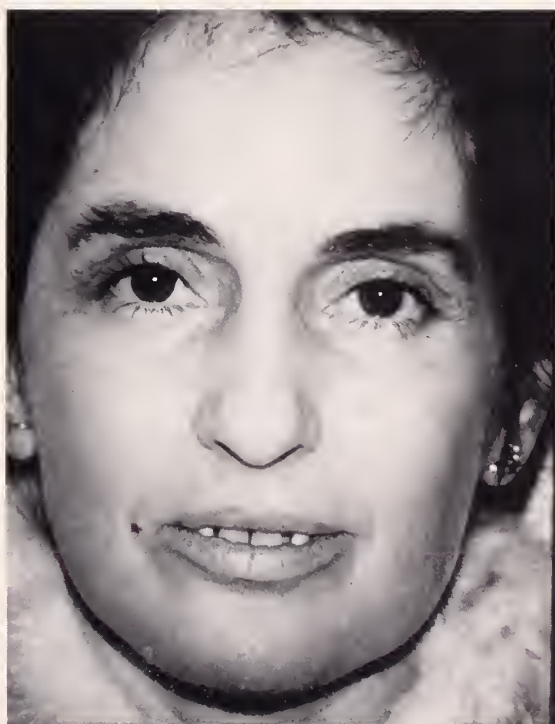


Figure 2 — Six months after chemical peel of entire face

A fresh suspension is mixed for each use. After carefully drying the skin with ether, the phenol is painted on the skin using a cotton tipped applicator. Care is taken to go to natural folds (such as the naso-labial fold) or into the hairline to avoid a line of color demarcation. Care is taken to avoid contact with the conjunctiva. After application of phenol, waterproof adhesive tape is placed tightly over the treated area. The tape is left in place undisturbed for 48 hours and then removed. The moist skin beneath is then dried by application at regular intervals of thymol iodide powder (USP) until a dry mask occurs. The next day washing is begun and a mild antibiotic ointment is applied. Within a week the skin is healed, bright red, and *smooth*.

### Discussion

The rationale, toxicology, histology, and complications have been completely described in other publications.<sup>3-6</sup> As with any other medical treatment, this one is not without its cautions and complications. An important side effect of this treatment is lightening of the color of the skin, which is relatively permanent. For this reason, the treatment occasionally may be useful for skin pigmentation problems (for example, chloasma). This side effect, however, precludes its use in dark skinned individuals.

Chemical face peeling is useless for the treatment of scars (for example, acne scars). Furthermore, timing, in relation to other surgical procedures, is extremely important. Actual skin necrosis has been seen when this treatment has been used too soon after undermining surgical procedures have been performed prior to the chemical peel.

### Conclusion

A relatively new technique, chemical face peeling, has been added to the plastic surgeon's armamentarium in his quest for facial rejuvenation. An increasing number of patients, both men and women, are seeking to maintain their youthful appearance as long as possible. Though none of our techniques has achieved the "fountain of youth," we have been able to "turn back the clock." Best results are obtained when the available treatments are carefully selected and properly timed for each individual patient. The chemical face peel technique is an effective method to remove fine wrinkling.

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Art and Hobby Exhibits



## Psychiatric Screening of Candidates

Almost daily, newspapers document accounts of antisocial behavior by "enforcers of authority" or "guardians of the law." There are some infamous examples which are familiar to all — the Kent State massacre, the Attica Prison riots, the My Lai slaughter, numerous examples of "shoot-outs" in Black Panther headquarters, and the murder of the Glover boy on the street in New York. A perusal of such blots on our national reputation leads one to question the validity of screening — if such exists, at all — for keepers-of-the-peace. These events involved officers and enlisted men in the armed forces, national guardsmen, policemen, and prison guards.

In evaluating these happenings, one may look first at the "victims," individually and collectively, and then turn his magnifying lens on the "assaulters."

At Kent State University, there were four students slain and nine injured by gunfire, and an untold number punctured by bayonets. All the student-victims, who were Caucasian, were demonstrating against the presence of the Ohio National Guard on their campus, an assignment which followed anti-Vietnam War student demonstrations. The guardsmen were also white and young, and were inexperienced. Furthermore, they had been sent directly from duty on the Teamsters' Union strike and were both tense and exhausted.

Attica prison housed approximately 2,200 prisoners, 85 percent of whom were black or Puerto Rican. All the guards were Caucasian and were residents of the community surrounding this upstate New York penal institution.

My Lai, a Vietnamese hamlet, will go down in infamy as the place where American soldiers of the First Platoon, under Lieutenant William L. Calley, Jr., massacred at least 347 unarmed civilian men, women, and children. One 20-year-old private-first-class in Calley's platoon fired 70 shots into squatting Vietnamese "because I felt like I was ordered to do it."

Clifford Glover, a ten-year-old Negro was walking the streets of New York City when he pretended to aim a gun at a policeman. The officer drew his service revolver and killed the child, claiming later that Glover had a gun in his hand. No gun was ever found; the policeman was suspended from duty and charged with murder.

The victims range in temperament from rebellious collegians whose "hi-jinks-antics" had an anti-war incentive (unquestionably more sinister than swallowing goldfish or "streaking" across the campus) to dedicated anarchists devoted, presumably, to the destruction of our government, to a playful child. As to the Vietnamese, they just happened to be in the right place (their homeland) at the wrong time. Except for the Vietnamese, one might say the victims were provocative. Did they deserve to die? Definitely not!

How about the "enforcers?" Individually, at least on the surface, in television interviews and newspaper accounts, they appeared to be pleasant, respectful, law-abiding citizens who were remorseful after the fact, which they wished had never happened. They made excuses, blamed others, including the victims, but gave little evidence that the event would not be repeated, given the same set of circumstances. A major commonality — perhaps the only one — was their possession of lethal weapons and the authority to use them. We know nothing of their personality structures, their character weaknesses, their use or abuse of alcohol and/or drugs, their motivations, their impulsiveness, ability to make decisions, or a multitude of other considerations.

We must grant that law enforcement and "soldiering" are difficult jobs at best, and life-threatening at all times. Setting this aside for a moment, one might consider the situation in mental hospitals, custodial nursing homes, child care centers, residential institutions for parentless children, and corrective institutions for juvenile delinquents. Here one has a similar

situation — a potential “victim” and a potential “abuser.” Examples of professional incompetence, combined with sadistic behavior in non-professionals in such environments, are a matter of record.

What then, is the problem? In general, it is a failure adequately to evaluate applicants for positions where such abuse is possible, coupled with the fact that the pay scale for such positions is relatively low. This makes the search for bodies to fill the jobs more important than the screening process. There is an absence of effective methods and systems to screen out the sadistic, the psychopathic, the sociopathic, the unstable, and the latent psychotic individuals who apply for positions as policemen, soldiers, security guards, national guardsmen, hospital orderlies, attendants, and aides.

In a related article (page 213), the author points out the imperfections of his system of screening police candidates for a community police force. One of the My Lai corporals, whose charge of murder was dismissed, later earned a degree in “criminal justice” at Biscayne College in Florida; he was later turned down when he tried

to become a policeman. The New Jersey State Police has a careful screening process of its candidates which includes a meticulous background investigation, medical evaluation, the Minnesota Multiphasic Personality Inventory, a written intelligence test, and an oral interview by a board which includes a psychiatrist. Out of 2,000 candidates recently screened, only 118 were qualified. The disqualifications were mainly due to failure on the written examination or medical reasons.

What is the solution to this dilemma? Psychiatrists, psychologists, sociologists, and other experts in human behavior must direct their expertise to the development of better screening and evaluative techniques, which should be mandatory. The pre-employment investigations should include a report from the family practitioner, who may have essential historical and psychological facts at hand. Psychometric testing and psychiatric interviews are important for they may screen out at least 25 percent of the applicants as unsuitable. More sensitive techniques are needed, however, to evaluate the remaining 75 percent, which may include a future perpetrator of a Kent State or My Lai massacre. A.K.

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## ANNOUNCEMENTS

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### Neurology-Neurosurgery Conference

The Pascack Valley Hospital in Westwood announces the following in its series on joint conferences in neurology and neurosurgery.

March 10	Neurosurgical clinical pathology
April 14	Epilepticus
May 12	Severe head injury — neurosurgical viewpoint
June 9	Severe head injury — medical viewpoint

Programs are held on the second Tuesday of each month from 11:30 a.m. to 12:30 p.m. and are fully accredited for category I of the AMA Physicians' Recognition Award. For further information, please write to the hospital or to Andrew L. Bender, M.D., 400 Old Hook Road, Westwood 07675.

### Current Topics in Psychiatry

The Fair Oaks Hospital in Summit announces the following programs in the 1974-1975 series on current topics in psychiatry. Dates and topics of subsequent sessions will be announced in future issues of *The Journal*.

Mar. 19	Reforms of Mental Hospitals — 20th Century
Apr. 2	Alcoholism
Apr. 16	Applied Electroencephalography
Apr. 30	Drug Addiction

Sessions are held from 3 to 4:30 p.m. in the Conference Room at the Hospital (19 Prospect Street). Granville L. Jones, M.D., Director of Research and Education at Fair Oaks, will be moderator and further information is available

by writing directly to him.

The programs are co-sponsored by the Academy of Medicine and are accredited for Category I of the AMA Physician's Recognition Award.

### Chest Care Conference

On April 3 from 4 to 6 p.m., at the Rutgers Medical School in Piscataway, the Delaware-Raritan Lung Association, in conjunction with the New Jersey Thoracic Society, will sponsor a Central New Jersey Chest Care Conference. Topic for this colloquium will be "New Horizons in the Early Detection of Lung Cancer." The speaker will be L. Fred Ayvazian, M.D., Chief of the Pulmonary Disease Section of the Veterans Administration Hospital at East Orange. The program is acceptable for two hours of category I AMA accreditation. For further information, please communicate with Ms. Hummel, Program Assistant, at the Delaware-Raritan Lung Association, 29 Emmons Drive, Princeton 08540.

### Internists to Meet in Hawaii

Immediately following the annual session of the American College of Physicians in San Francisco, April 7 to 10, there will be a two-day (April 13 and 14) scientific meeting sponsored by the Hawaii Regional Chapter of the ACP. The sessions, which are accredited for category I of AMA-CME, will be held at the Kahala Hilton in Honolulu. Additional information is available from Bernard W.D. Fong, M.D., 181 Kukui Street, Honolulu, Hawaii 96813.

### Adolescence and Sexuality

On Wednesday, May 28, 1975 at 1 p.m., at the Carriage Trade, 88 Evergreen Place, East Orange, a program on "Adolescence and Sexuality" will be presented by the Human Sexuality Program of the Department of Obstetrics and Gynecology of the New Jersey Medical School, CMDNJ. Three credit hours will be awarded in category I, AMA-CME for attendance. For additional information, please communicate with Richard Samuels, Ph.D., Department of Obstetrics and Gynecology, Martland

Hospital Unit, New Jersey Medical School, CMDNJ, 65 Bergen Street, Newark, New Jersey 07107.

### Seminar on Aging in Israel

In conjunction with the International Congress on Gerontology, June 19 to 21, 1975, in Wingate, Israel, the Center for the Study of Aging and the Wingate Institute for Physical Education and Sports will conduct a satellite seminar on aging. Scientific papers are invited. The program will include speakers, panels, workshops, and visits to rehabilitation facilities. Registration is limited to professional and allied personnel in medicine, physical education, sports, gerontology, and rehabilitation. Cooperating agencies include the President's Council on Physical Fitness and Sports, the National Graduate University, and the National Council on Aging. For further information, please write to Raymond Harris, M.D., President, Center for the Study of Aging, 706 Madison Avenue, Albany, New York 12208.

### Humanities Seminars for Physicians

The National Endowment for the Humanities announces the following humanities seminars for physicians and other members of the health professions, to be held throughout the summer and fall. Examined will be the basic issues bearing on medical practice in their ethical, philosophical, historical, and social contexts, using case studies, readings, and discussions. The program aims to improve the quality of leadership in Medicine by broadening the perspective from which physicians view their profession and society at large.

Up to fifteen participants will be chosen for each seminar. Attendance is tuition-free and a \$1,200 stipend for room and board, plus up to \$300 for travel reimbursement, will be available. Families are welcomed at no increase in stipend or travel allowance. Deadline for applications, which should be sent to the individual seminar director, to all but the last-mentioned program is April 1, with selections announced by April 8; for the meeting to be held in Galveston the deadline is May 19, with announcement by May 30.



*June 2 to June 30* — Professor Renee C. Fox, Department of Sociology, University of Pennsylvania, 128 McNeil Bldg. CR, Philadelphia 19174

Examines conceptions of health and illness, professional development, hospital as a community, medical research, ethical and existential issues in contemporary medicine.

*June 23 to July 18* — Professor J. C. Burnham, Department of History, Ohio State University, 230 W. 17th St., Columbus, Ohio 43210

Examines and attempts to identify historical forces which have shaped the medical profession and determined the direction of its development, and how it has been involved in the forces of social change.

*June 29 to July 25* — Professor Wm. F. May, Department of Religious Studies, Sycamore Hall 230, Indiana University, Bloomington, Indiana 47410

*Seminar held at Williams College, Williamstown, Mass.*

Explores basic ways of interpreting human nature and obligation as they affect decisions in medical practice; examines the role of the practitioner in doctor-patient relations, in family medical crises, in decision-making ethos of the hospital, and in society at large.

*July 27 to August 22* — Dr. Leon R. Kass, Center for Bioethics, Kennedy Institute, Georgetown University, Washington, D.C. 20007.

*Seminar held at Williams College, Williamstown, Mass.*

Explores fundamental questions about the nature of man and

human community; considers questions regarding the purpose and limits of Medicine.

*September 8 to October 2* — Professor H. T. Englehardt, Jr., Institute for Medical Humanities, University of Texas Medical Branch, Galveston, Texas 77550

Reviews areas of current ethical controversy in Medicine, rights and duties of patients and practitioners, quality of life, human dignity in decision-making in medical practice.

## Mini-Residency Program

The Cooper Hospital in Camden announces a new, one-week "mini-residency" in retrieval and enhancing basic medical skills, involving live-in, one-to-one activities with house or attending staff. Only one physician will be accommodated each week to insure concentrated instructional attention. Priority is given to former house staff. A concurrent program for wives is available in nursing, medical technology, medical records, or volunteer services. Satisfactory completion of the program carries a maximum credit of 40 hours in Category I under AMA and MSNJ CME programs. For further information, please write to the Department of Medical Education, the Cooper Hospital, Camden, New Jersey 08103.

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# MEETINGS OF MEDICAL INTEREST

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This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

## Mar.

### 10 Distinguished Lectures in Surgery

17 4-5 p.m. — Martland Hospital, Newark

24 (Sponsored by CMDNJ, New Jersey Medical

31 School, and Academy of Medicine)

### 10 Neuro-Ophthalmology

11:30 a.m.-12:30 p.m. — Bergen Pines County Hospital, Paramus

(Sponsored by Bergen Pines County Hospital and Academy of Medicine)

11 Regressive Changes in Oral Cavity in Aged — 4-5 p.m.

11 Effects of Aging on Endocrine System — 5-6 p.m.

18 Reproductive Changes in Senility — 4-5 p.m.

18 Musculo-skeletal Changes and Rehabilitation in Aged — 5-6 p.m.

25 Dermatological Changes in Old Age — 4-5 p.m.

25 Developmental Changes in Renal Function — 5-6 p.m.

Martland Hospital, Newark

(Sponsored by Academy of Medicine)

### 12 1974-75 Educational Seminars

9:30 a.m.-12 noon — St. Clare's Hospital, Denville

(Sponsored by St. Clare's, Dover General and Riverside Hospitals, and Academy of Medicine)

### 12 Perspectives in Medical Education in New Jersey

19 Diabetes Mellitus — after 50 Years of Insulin

26 Medical Hazards of Air Pollution

9:30 a.m. — Bergen Pines County Hospital, Paramus

(Sponsored by Bergen Pines County Hospital and Academy of Medicine)

### 12 1974-75 Medical Lecture Series

9-11 a.m. — Riverview Hospital, Red Bank

(Sponsored by Riverview Hospital and Academy of Medicine)

- 12 Distinguished Lectures in Neuroscience**  
**19** 10:30-11:30 a.m. — VA Hospital, East Orange  
*(Sponsored by CMDNJ, New Jersey Medical School)*
- 12 Clinical Endocrinology**  
**19** 3:30 p.m. — Martland Hospital, Newark Beth  
**26** Israel, and VA Hospital, East Orange (varies)  
*(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 12 Renal Failure**  
**19** **Resuscitation in Shock and Trauma**  
**26** **Office Urology**  
 9-11 a.m. — Middlesex General Hospital, New Brunswick  
*(Sponsored by Middlesex General Hospital and Academy of Medicine)*
- 12 Clinical Interpretation of Diagnostic Laboratory Tests**  
**19** 3:30-5:30 p.m. — Rutgers Medical School, Piscataway  
**26** *(Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)*
- 12 Common Thyroid Disorders**  
 8 p.m. — Holiday Inn, Philadelphia  
*(Sponsored AAFP and Philadelphia Medical Laboratory, Inc.)*
- 12 Joint Conference**  
 9 a.m.-4 p.m. — Ramada Inn, East Brunswick  
*(Sponsored by New Jersey Thoracic Society, ACCP, and Academy of Medicine)*
- 12 Cancer Day Symposium**  
 9 a.m.-5 p.m. — Englewood Hospital Association  
*(Sponsored by Englewood Hospital and Academy of Medicine)*
- 12 Multiple Sclerosis, Demyelinating Diseases**  
 VA Hospital, East Orange  
*(Sponsored by Academy of Medicine)*
- 12 Monthly Neuroradiology Meeting**  
 7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
*(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)*
- 12 Psychotropic Medication**  
 2 p.m. — Christ Hospital, Jersey City  
*(Sponsored by Christ Hospital, AAFP, and Academy of Medicine)*
- 12 Workshop on Clarification of Values by Health Care Teams**  
**18** Rutgers Medical School, CMDNJ, Piscataway  
*(Sponsored by CMDNJ)*
- 13 Continuing Medical Education Program**  
 6:30 p.m. — Bridgeton Hospital, Bridgeton  
*(Sponsored by Bridgeton Hospital and Academy of Medicine)*
- 13 Thrombophlebitis and Pulmonary Embolism**  
 8 p.m. — Mount Holly Center, Mount Holly  
*(Sponsored by Burlington County Medical Society and Academy of Medicine)*
- 13 Basic Sciences and Clinical Applications**  
**20** 3:30-4:30 p.m. — Burlington County Memorial  
**27** Hospital, Mount Holly  
*(Sponsored by Burlington County Memorial Hospital and NJAFP)*
- 13 Clinical Nephrology**  
**20** 4-5 p.m. — Martland Hospital Unit, Newark  
**27** *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 14 Antihypertensive Agents**  
 2 p.m. — East Orange VA Hospital  
*(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)*
- 16-19 22nd Annual Convention**  
 Host Farm, Lancaster, Pa.  
*(Sponsored by New Jersey Academy of Family Physicians and Academy of Medicine)*
- 17 Proper Use of Antibiotics**  
 8 p.m. — Irvington General Hospital, Irvington  
*(Sponsored by Academy of Medicine)*
- 18 Cardiac Arrhythmias**  
 11:30 a.m. — St. Mary's Hospital, Orange  
*(Sponsored by Academy of Medicine)*
- 19 Corneal Inflammation**  
 7:30 p.m. — United Hospitals of Newark  
*(Sponsored by N.J. Medical School Affiliated Hospitals, Newark Eye and Ear Unit, Associated Eye Residencies of N.J., Martland Hospital Unit, Jersey City Medical Center, VA Hospital, East Orange, Eye Institute of N.J., and Academy of Medicine)*
- 19 Psychiatry; Family Therapy**  
 1 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Academy of Medicine)*
- 19 Medical-Surgical Emergencies in Psychiatric Practice**  
 1:30 p.m. — John E. Runnells Hospital, Berkeley Heights  
*(Sponsored by Academy of Medicine)*
- 19 The Rights of Childhood**  
 8-10 p.m. — 81 Grand Avenue, Englewood  
*(New Jersey Medical Women's Association)*
- 19 Joint Monthly Sessions of Clinical Interest**  
 7-9 p.m. — VA Hospital, East Orange  
*(Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)*
- 19 Cor Pulmonale**  
 11:30-1 p.m. — VA Hospital, East Orange  
*(Sponsored by CMDNJ, New Jersey Medical School and Academy of Medicine)*
- 19 Chronic Anginal Syndrome**  
 2 p.m. — Christ Hospital, Jersey City  
*(Sponsored by Christ Hospital and Academy of Medicine)*
- 20 1974-75 Lecture Series**  
 10:30 a.m. — Hunterdon State School, Clinton  
*(Sponsored by Hunterdon State School and Academy of Medicine)*

- 20 Graduate Teaching Programs 1974-75**  
4:30-6:30 p.m. — Somerset Hospital, Somerville  
(Sponsored by Somerset Hospital and Academy of Medicine)
- 20 Chest Case Conferences**  
7:30 p.m. — Overlook Hospital, Summit  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 21 Renal Failure**  
12:15 p.m. — Zurrugg Memorial Hospital, Riverside  
(Sponsored by Academy of Medicine)
- 21 Fluid and Electrolyte Imbalance**  
12 noon — Freehold Area Hospital, Freehold  
(Sponsored by Academy of Medicine)
- 21 Proper Use of Antibiotics**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 25 Mycologic Disease Syndromes**  
11 a.m. — Perth Amboy General Hospital, Perth Amboy  
(Sponsored by Academy of Medicine)
- 25 Renal Failure**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Warren Hospital and Academy of Medicine)
- 25 Sonography**  
7 p.m. — Englewood Men's Club  
(Sponsored by Englewood Hospital Association, Englewood Surgical Associates, and Academy of Medicine)
- 26 Cerebrovascular Disease**  
12 noon — St. Francis Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 26 Ventilatory Failure**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 27 Sialography**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- 29 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- Apr.**
- 1 Renal Function in the Aged — 4-5 p.m.**
- 1 Changes in Pulmonary Function with Age — 5-6 p.m.**
- 8 Response of Aged to Operative Stress — 4-5 p.m.**
- 22 Neurological Changes During Senility — 4-5 p.m.**
- 22 The Aging Eye — 5-6 p.m.**
- 29 Panel Presentation — Aging, Dying, Death — 4-6 p.m.**  
Martland Hospital, Newark  
(Sponsored by Academy of Medicine)
- 2 Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 2 Common Errors in Practice**
- 9 Medical Hypnosis**
- 16 Functional Diseases**
- 23 Interaction of Drugs Used in Cardiac Disease**
- 30 Stroke Rehabilitation**  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
(Sponsored by Middlesex General Hospital and Academy of Medicine)
- 2 Genetics of Schizophrenia**
- 9 Chromosomes and Behavior**  
1:30-3:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 2 Eosinophil, Eosinophilia and Hypereosinophilic Syndrome**  
Schering Laboratories, Kenilworth  
(Sponsored by New Jersey Allergy Society and Academy of Medicine)
- 2 Clinical Endocrinology**
- 9 3:30 p.m. — Martland Hospital, Newark Beth**
- 16 Israel, and VA Hospital, East Orange (varies)**
- 23 (Sponsored by CMDNJ, New Jersey Medical**
- 30 School, and Academy of Medicine)**
- 2 Clinical Interpretations of Diagnostic Laboratory Tests**  
3:30-5:30 p.m. — Rutgers Medical School, Piscataway  
(Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)
- 2 Monthly Meeting**  
8-10 p.m. — Newark Beth Israel Medical Center, Newark  
(Sponsored by New Jersey Gastroenterological Society and Academy of Medicine)
- 2 Coronary Surgery Controversy**
- 9 Nutritional Anemia**
- 16 Clinical Pathology Conference**
- 23 Rheumatoid Arthritis**
- 30 Medical-Surgical-Cardiology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 2 Proper Use of Blood Gases**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 2 Proper Use of Blood Gases**  
2 p.m. — Cherry Hill Medical Center, Cherry Hill  
(Sponsored by Academy of Medicine)
- 2 Distinguished Lectures in Neuroscience**
- 9 10:30-11:30 a.m. — VA Hospital, East Orange**
- 16 (Sponsored by CMDNJ, New Jersey Medical**
- 23 School, VA Hospital, East Orange, and Academy**
- 30 of Medicine)**
- 3 Basic Sciences and Clinical Applications**
- 10 3:30-4:30 p.m. — Burlington County Memorial**
- Hospital, Mount Holly**



- 17 *(Sponsored by Burlington County Memorial Hospital*  
24 *and NJAFP)*
- 3 **Proper Use of Antibiotics**  
1:00 p.m. — Ancora Psychiatric Hospital, Hammonton  
*(Sponsored by Academy of Medicine)*
- 3 **Clinical Nephrology**  
10 4-5 p.m. — Martland Hospital Unit, Newark  
17 *(Sponsored by CMDNJ, New Jersey Medical*  
24 *School, and Academy of Medicine)*
- 5 **Orthopedic Surgery**  
12 8:30 a.m. — Martland Hospital, Newark  
19 *(Sponsored by CMDNJ, New Jersey Medical*  
26 *School, and Academy of Medicine)*
- 5 **Basic Science for Surgeons**  
12 10 a.m.-12 noon — Martland Hospital, Newark  
19 *(Sponsored by CMDNJ, New Jersey Medical*  
26 *School, and Academy of Medicine)*
- 7 **Distinguished Lectures in Surgery**  
14 4-5 p.m. — Martland Hospital, Newark  
21 *(Sponsored by CMDNJ, New Jersey Medical*  
28 *School, and Academy of Medicine)*
- 8 **Workshop on Applying Systems Approach to Hospital Education Programs for Physicians and Nurses**  
Rutgers Medical School, CMDNJ, Piscataway  
*(Sponsored by CMDNJ)*
- 8 **Tumor Clinical Conference**  
11 a.m. — Morristown Memorial Hospital  
*(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)*
- 8 **Office Surgery**  
8 p.m. — White Laboratories, Schering Corporation  
*(Sponsored by New Jersey Dermatology Society and Academy of Medicine)*
- 8 **Gastrointestinal Bleeding**  
8 p.m. — Paul Kimball Hospital, Lakewood  
*(Sponsored by Academy of Medicine)*
- 8 **Proper Use of Antibiotics**  
10:30 a.m. — North Hudson Hospital, Weehawken  
*(Sponsored by Academy of Medicine)*
- 9 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
*(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)*
- 9 **Alcoholic Illness and Drug Abuse in Hudson County**  
2 p.m. — Christ Hospital, Jersey City  
*(Sponsored by Christ Hospital and Academy of Medicine)*
- 9 **Southern New Jersey Regional Case Conferences**  
7:30-9:30 p.m. — Cooper Hospital, Camden  
*(Sponsored by New Jersey Thoracic Society and Academy of Medicine)*
- 10 **Continuing Education Programs**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
*(Sponsored by Bridgeton Hospital and Academy of Medicine)*
- 10 **Sexual Dysfunction**  
8 p.m. — Burlington County Memorial Hospital, Mt. Holly  
*(Sponsored by Burlington County Medical Society and Academy of Medicine)*
- 11 **Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
*(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)*
- 14 **Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
*(Sponsored by Pascack Valley Hospital and Academy of Medicine)*
- 15 **Newer Concepts in Hepatitis Management**  
12 noon — Hospital Center at Orange  
*(Sponsored by Academy of Medicine)*
- 16 **Infertility**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey City  
*(Sponsored by Academy of Medicine)*
- 16 **Hepatitis Management**  
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights  
*(Sponsored by Academy of Medicine)*
- 16 **Thanatology**  
1 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Academy of Medicine)*
- 16 **Tuberculosis Before and After Chemotherapy**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
*(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 16 **Thyroid Gland and Thyroid Disorders**  
2 p.m. — Christ Hospital, Jersey City  
*(Sponsored by Christ Hospital and AAFP)*
- 18 **Care of the Critically Ill Patient — Cardiac Arrests**  
12 noon — Freehold Area Hospital, Freehold  
*(Sponsored by Academy of Medicine)*
- 19 **Annual Meeting, New Jersey Obstetrical and**  
20 **Gynecological Society**  
Cherry Hill Inn, Cherry Hill
- 21 **Arteriography**  
11:30 a.m. — Helene Fuld Hospital, Trenton  
*(Sponsored by Academy of Medicine)*
- 22 **Hepatitis Management**  
8 p.m. — Warren Hospital, Phillipsburg  
*(Sponsored by Academy of Medicine)*
- 22 **Regional Chest Case Conferences**  
7:30 p.m. — Christ Hospital, Jersey City  
*(Sponsored by New Jersey Thoracic Society and Academy of Medicine)*
- 22 **Intestinal Endoscopy**  
7 p.m. — Englewood Men's Club, Englewood  
*(Sponsored by Englewood Hospital, Englewood Surgical Associates, and Academy of Medicine)*
- 22 **Adolescents at Risk**

- 9 p.m. — Marriott Motor Inn, Saddle Brook  
(Sponsored by N.J. Council, American Academy of Child Psychiatry and Academy of Medicine)
- 23 **Viral Hepatitis (State of the Art Conference in Nephrology)**  
1-4 p.m. — Jersey City Medical Center, Jersey City  
(Sponsored by Nephrology Society of New Jersey and Academy of Medicine)
- 23 **Oral Manifestations of Systemic Disease**  
9 a.m.-4 p.m. — VA Hospital, East Orange  
(Sponsored by Academy of Medicine)
- 23 **1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospitals, and Academy of Medicine)
- 24 **Workshop on Clarification of Values by Health Care Teams**  
Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)
- 24 **Pancreatic Scanning**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- 25 **Medical Care in the Emergency Room**  
12:15 p.m. — Zurbrugg Memorial Hospital, Riverside  
(Sponsored by Academy of Medicine)
- 25 **Hepatitis Management**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 26 **Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- 30 **Advances in Use of Antibiotics**  
9 a.m. — Barnert Memorial Hospital, Paterson  
(Sponsored by Barnert Memorial Hospital)
- May
- 1 **Clinical Nephrology**  
8 4-5 p.m. — Martland Hospital Unit, Newark  
15 (Sponsored by CMDNJ, New Jersey Medical  
22 School, and Academy of Medicine)  
29
- 1 **Basic Sciences and Clinical Applications**  
8 3:30-4:30 p.m. — Burlington County Memorial  
Hospital  
15 (Sponsored by Burlington County Memorial  
22 Hospital and Academy of Medicine)
- 3 **Orthopedic Surgery**  
10 8:30 a.m. — Martland Hospital, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical  
24 School, and Academy of Medicine)
- 3 **Basic Science for Surgeons**  
10 10 a.m.-12 noon — Martland Hospital, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical  
24 School, and Academy of Medicine)  
31
- 5 **Distinguished Lectures in Surgery**  
12 4-5 p.m. — Martland Hospital, Newark  
19 (Sponsored by CMDNJ, New Jersey Medical  
School, and Academy of Medicine)
- 5 **Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital,  
American Cancer Society, and Academy of Medicine)
- 7 **Mini-dose Heparin in Surgical Patients**
- 14 **New Diagnostic Techniques in Gastroenterology**
- 21 **Aggressive Treatment of Stroke**
- 28 **Gerontology**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and  
Academy of Medicine)
- 7 **Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 7 **Fluid and Electrolyte Imbalance**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 7 **Distinguished Lectures in Neuroscience**
- 14 10:30-11:30 a.m. — VA Hospital, East Orange  
21 (Sponsored by CMDNJ, New Jersey Medical  
28 School, East Orange VA Hospital, and Academy  
of Medicine)
- 7 **Clinical Interpretation of Diagnostic Laboratory**
- 14 **Tests**
- 21 3:30-5:30 p.m. — Rutgers Medical School, Pis-  
cataway  
28 (Sponsored by CMDNJ, Rutgers Medical School, and  
Academy of Medicine)
- 7 **Clinical Endocrinology**
- 14 3:30 p.m. — Martland Hospital, Newark Beth  
21 Israel Medical Center, and VA Hospital, East  
28 Orange (varies)  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 7 **Minor Surgery in Office Practice**
- 14 **Learning Disabilities**
- 21 **Nutrition of the Aged**
- 28 **Emotional Aspects of Common Medical Problems**  
9-11 a.m. — Middlesex General Hospital, New  
Brunswick  
(Sponsored by Middlesex General Hospital)
- 12 **Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy  
of Medicine)
- 13 **Hepatitis Management**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 13 **Fluid and Electrolyte Imbalance**  
12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
- 13 **Proper Use of Laparoscopy**

- 11 a.m. — Margaret Hague Maternity Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 13 **Proper Use of Blood Gases**  
10:30 a.m. — North Hudson Hospital, Weehawken  
(Sponsored by Academy of Medicine)
- 14 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)
- 14 **Respiratory Failure**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 14 **1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospitals, and Academy of Medicine)
- 16 **Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 19 **Proper Use of Blood Gases**  
8 p.m. — Irvington General Hospital, Irvington  
(Sponsored by Academy of Medicine)
- 21 **Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)
- 22 **Regional Chest Case Conferences**  
7:30 p.m. — The Medical Center at Princeton  
(Sponsored by New Jersey Thoracic Society, and Academy of Medicine)
- 23 **Continuing Education Programs**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of Medicine)
- 23 **Cardiology**  
8:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen County Heart Association and Lederle Laboratories)
- 23 **Proper Use of Blood Gases**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 23 **Ischemic Heart Disease**  
8:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 27 **Psychiatry**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 28 **Annual Awards Dinner**  
6 p.m. — Chanticleer, Millburn  
(Sponsored by Academy of Medicine)
- 28 **Pulmonary Circulation**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 31 **Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- May 31-June 3**  
**Annual Meeting, MSNJ**  
Garden State Convention Center, Cherry Hill
- June**
- 3 **Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)
- 4 **Clinical Endocrinology**  
3:30 p.m. — Martland Hospital, Newark Beth Israel Medical Center, and VA Hospital, East Orange (varies)  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 4 **1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospital and Academy of Medicine)
- 4 **Gastrointestinal Cancer**
- 11 **House Staff Symposium**
- 18 **Clinical Pathology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 5 **Thanatology**  
1 p.m. — Ancora Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 7 **Orthopedic Surgery**  
8:30 a.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 7 **Basic Science for Surgeons**
- 14 **10 a.m.-12 noon — Martland Hospital, Newark**
- 21 **(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)**
- 28 **School, and Academy of Medicine)**
- 9 **Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)
- 10 **Difficult Diabetic Patient**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 11 **Angina Pectoris**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital and Academy of Medicine)
- 11 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)



- 13 Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 18 Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)
- 24 Hepatitis, Acute and Chronic**  
11 a.m. — Perth Amboy General Hospital, Perth Amboy  
(Sponsored by Academy of Medicine)
- 24 Thyroid Diseases**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 25 Air Pollution**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 27 Endotoxic Shock**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 28 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)

## Personal Items

### John J. McGuire, M.D.

John J. McGuire, M.D., a West Orange surgeon, was named "the outstanding Irishman of 1974" by the St. Patrick's Guard of Honor of New Jersey. Dr. McGuire, who received his B.S. from Seton Hall and his M.D. from the State University of New York, is a Fellow of the American College of Surgeons, the President-Elect of The Medical Society of New Jersey, the Secretary of the State Board of Medical Examiners, and Past-President of the Society of Surgeons of New Jersey. Governor Byrne was among the 450 men of Irish extraction who honored Dr. McGuire.

### Chester I. Ulmer, M.D.

One of our senior members, Dr. Chester Ulmer, is to be honored again by his home community. Now retired and living in Pitman, Dr. Ulmer came to Gibbstown in Gloucester County, in 1916, as a general practitioner and stayed to win the hearts of all who met him. For 47 years he compassionately ministered to his patients, and for an even longer time he offered distinguished service, loyalty, and devotion to his community. He gave unstintingly of thought and time to his county medical society, having served on many committees, as secretary for five years, and as

president for one year. At the state level, he was a representative from the Gloucester County Medical Society on the State Society's Welfare Committee and served also as a member of its subcommittee on Medical Practice, the forerunner of today's Council on Medical Services. For many years he was the Judicial Councilor representing the Fifth District and was chairman of MSNJ's Committee on Pharmaceutical Problems. Recognition has come to this gentle, gracious, most respected man on many occasions — testimonials, awards, acknowledgments in the press (both prose and verse), among others — and now he is about to have one more — a park in Gibbstown is to be named for him in commemoration of his long service as a physician in that community. *The Journal* offers its congratulations to Dr. Ulmer for this latest acknowledgment of respect.

### Department of Health Alcohol Program

Richard J. Russo has been designated Assistant Commissioner (State Department of Health), Alcohol, Narcotic and Drug Abuse. The alcohol program has been transferred from the Community Health Services to the Alcohol, Narcotic and Drug Abuse Unit.

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# OBITUARIES

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## Dr. Forrest S. Chilton

Dr. Forrest S. Chilton, a retired obstetrician and gynecologist from Passaic County, died at his retirement home in Florida on January 13, 1975. Born in 1903 and a graduate of Long Island College of Medicine, class of 1932, he had practiced his chosen specialty in Pompton Plains until retirement in 1970. Dr. Chilton had been chief of the department of obstetrics and gynecology at Chilton Memorial Hospital in Pompton Plains. During World War II he had served his country in the medical department of the U.S. Navy, with the rank of Lt. Commander. During the 1950's he was active in civic affairs and had been school physician in his home community.

## Dr. Harry Dawson

One of Passaic County's senior members, Harry Dawson, M.D., of Paterson, died on January 18, 1975. Born at the turn of the century, Dr. Dawson was graduated from the Iowa University School of Medicine in 1925, and following internship accepted appointment to a residency in roentgenology with the United States Public Health Service. He returned to his native city and engaged in the practice of that specialty as chief of roentgenology at Hope Dell Hospital in Preakness and as associate in roentgenology at Paterson General Hospital. During World War II, Dr. Dawson served his country in the medical department of the U.S. Navy with the rank of Commander.

## Dr. William E. Dodd

On January 4, 1975, William E. Dodd, M.D., one of Ocean County's senior members, died after a protracted illness. He was graduated from the University of Pennsylvania College of Medicine in 1920 and practiced briefly in western Pennsylvania before coming to Beach Haven on Long Beach Island in 1929. There he was a general practitioner and surgeon, and with the assistance of his wife, a registered nurse, had maintained an emergency hospital-clinic until the early 1940's to care for patients until they could be moved to the nearest hospital at

Lakewood. He had been associated with Paul Kimball Hospital in Lakewood, Community Hospital in Toms River, and the Point Pleasant Hospital. Dr. Dodd was instrumental in establishing the first aid squad on Long Beach Island and gave active service to it for many years. During the 1940's he was active in Medical Society affairs, having been Chairman of the Advisory Committee to the Woman's Auxiliary and the representative from his County Medical Society to the State Society Welfare Committee. After retirement in 1965 he pursued his interest in travel and in shell collection and spent much time lecturing to schools and service organizations. Dr. Dodd was 81 years old at the time of his death.

## Dr. Victor duBusc

On December 31, 1974, one of Union County's senior practitioners, Victor duBusc, M.D., of Elizabeth died after a long illness. A native of New Jersey and a graduate of Columbia University's College of Physicians and Surgeons, where he earned his M.D. degree in 1920, he practiced pediatrics in the Elizabeth area for many years until failing health forced his retirement in 1973. He was a Fellow of the American Academy of Pediatrics and had been on the staff at Elizabeth General, St. Elizabeth, and Alexian Brothers Hospitals in Elizabeth, at the Rahway Hospital, and at Babies Hospital in Newark. Dr. duBusc was 81 years old at the time of his death.

## Dr. William F. Grant

Word has just been received of the death on December 23, 1974 of William F. Grant, M.D., recently of Glen Ridge and formerly of Newark. Born in 1900 and a laureate of the doctor of medicine degree from Columbia University's College of Physicians and Surgeons in 1928, Dr. Grant had pursued graduate work in ophthalmology at the New York Graduate School of Medicine and took his residency at Bellevue. He became board certified in his chosen field, was a Fellow of the American College of Surgeons and a member of the American Association of Ophthalmology and Otolaryngology. He had been senior attending ophthalmologist at Newark Eye and Ear Infirmary and at the Presbyterian Hospital there and

had staff privileges at St. Michael's Hospital in Newark and at Clara Maass Hospital in Belleville. Dr. Grant had been consulting ophthalmologist for the New Jersey State Commission for the Blind.

#### Dr. Mildred G. Gregory

A former medical director of Babies Hospital in Newark and member of our Essex County component, Mildred G. Gregory, M.D., died on January 6, 1975, after a prolonged illness. Upon receipt of her bachelor's degree from Wellesley College and a master's degree in biology from Columbia University, Dr. Gregory entered the field of teaching at Skidmore College, but soon she was back at Columbia for graduate work in microbiology and a career as the first full time laboratory technician at Presbyterian Hospital in Newark. This served to whet her interest in medicine and it was just a step to the College of Physicians and Surgeons and a degree in medicine in 1928. Following internship she took a residency in pediatrics and began the practice of that specialty in Newark in 1932. In addition to the directorship at Babies Hospital, Dr. Gregory was associated with Presbyterian, the Eye and Ear Infirmary, the Hospital for Crippled Children, St. Barnabas, and East Orange General. She was board certified in her field and in 1961 had been named "Woman of the Year" by the New Jersey branch of the American Medical Women's Association, an organization she had served as treasurer for many years. She was a Fellow of the American Academy of Pediatrics and a member of the Academy of Medicine of New Jersey. Dr.

Gregory had been active in community affairs as a member of the Board of Directors of the YM-YWCA, the Essex County Clinic for Retarded Children, and the Foster Home and Children's Aid Society. She retired from the practice of pediatrics in 1970.

#### Dr. Albert E. O. Lynch

One of Essex County's general practitioners, Albert E. O. Lynch, M.D., died on December 20, 1974, at the age of 73. Dr. Lynch received his M.D. degree from New York University School of Medicine in 1927 and returned to his native Essex County to establish a practice in Montclair. He had been on the staff at St. Vincent's Hospital there and at Columbus Hospital in Newark and performed volunteer services for the Montclair Home for the Aged. Dr. Lynch's avocation was music. He played both the violin and the flute and performed with the Montclair State College Orchestra, the Verona Showplace Players, and the Bloomfield Symphony Orchestra.

#### Dr. Alfred G. Sheppard

At the grand age of 93, Alfred G. Sheppard, M.D., an emeritus member since 1957 and the father of one of our members from Cumberland County, Dr. M. A. Sheppard, died on November 25, 1974 at Elmer Community Hospital in Elmer, New Jersey. The elder Dr. Sheppard was graduated from the University of Maryland School of Medicine in 1907 and practiced general medicine in Elmer until retirement in 1957.

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## BOOK REVIEWS

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**Clinical Perinatology.** S. Aladjem and A. K. Brown, editors.  
St. Louis, Mosby, 1974. Pp. 492. Illustrated. (\$39.50)

Specialties are being created where once only a void existed. Such may be said of the field of perinatology. This clinical specialty which covers broadly the mother, fetus, and newborn infant is rapidly expanding and is very complex.

Because of this the use of contributors is necessary. No one author can be proficient in all aspects of this subspecialty.

The text takes us through maternal disorders, genetics, and infections that affect the maternal-fetal axis. It is a good, well-constructed and needed volume. The chapter on legal and ethical considerations focuses our attention on the need for a moral philosophy in our work. One consideration that lingers is that we are pushing the ability to save a newborn infant below the level of weeks at which a pregnancy can be terminated. It would appear to an outsider and some of us that the right hand of medical progress doesn't know what the left is doing!

This excellent book is recommended for all concerned with maternal and newborn care.

Gerard F. Hansen, M.D.



**Handbook of Obstetrics and Gynecology.** Fifth Edition. R.C. Benson. Los Altos, California, Lange, 1974. Pp. 770. Illustrated. (\$8)

This fifth edition of a handbook on obstetrics and gynecology continues to serve the educational purposes of the medical student and nurse as well as the physician preparing for state or specialty board examinations. Although the book is well written, well printed, well illustrated, and well published, it is not concise as a true handbook should be; in fact, despite Professor Benson's claim that it was intended to supplement more complete textbooks, it has succeeded more or less in competing with such works. This enthusiastic effort to be too inclusive has led to a more serious complaint — errors of omission and errors of commission. Although the former are more excusable, still when this book presents such a tremendous volume of material, the student or nurse might think that nothing significant has been excluded. The oxytocin challenge test or a reasonable facsimile deserves at least mention in an edition that claims to be "current" in 1974. One or more additional agents for spinal anesthesia should be mentioned besides procaine. Parenteral progesterone (100 mgms.) should be mentioned instead of four out-dated, less practical clinical pregnancy tests.

Errors of commission deserve serious criticism. Placental insufficiency has not properly or reliably been diagnosed and/or recognized via colpohormonocytology. Sporostacin has not been efficacious for candidiasis and has been withdrawn by its manufacturer. There is no justification for the "caution" against alkaline douches for candidiasis. Although these are only a few examples of errors which represent perhaps 5 percent of the material presented, their very existence casts a degree of doubt over the other 95 percent which is highly reliable and authoritative. There is always a need for a real handbook in each of the medical specialties and it is hoped that future editions will eliminate these few errors as well as a great deal of the superfluous and controversial material in the form of obscure etiologic possibilities.

Jerome Abrams, M.D.

**In Defense of the Body: An Introduction to the New Immunology.** Roger Lewin Ph.D. Garden City, N.Y. Doubleday, 1974. Pp 146. Illustrated. (\$2.50)

This small pocketbook on immunology is highly recommended as an excellent and thorough semi-technical, all-encompassing review of the latest in immunology up to about October 1974. Since immunology is rapidly changing, I predict it will need biennial or annual updating.

At the moment it is an authoritative and very readable review in seven chapters, bibliography, and index by an author who clearly sets forth the most complex im-

munological concepts in a simple, connected fashion. Every important highlight of immunology is discussed and directly applied to many new innovations in treatment which are either already here or on the immediate horizon. This is *must* reading for physicians in practice who want an overview of how immunology is developing in almost every specialty. It is also highly recommended for residents and interns as well as medical students.

Best of all, this book makes interesting reading for the intelligent lay person who is science oriented and would like to know what is going on in this new and fascinating specialty. The author is a Ph.D. biochemist who is the science editor of *The New Scientist* and personally acquainted with many of the research immunologists whose great advances he clearly and succinctly explains.

The book covers all of the subfields of immunology from its architecture, chemistry, and molecular biology to genetics and allergy, as well as tolerance and cancer. It tells its story in a simple and clear fashion and is highly recommended.

Arthur A. Goldfarb M.D.

**Topics in Blood Banking.** N. M. Abelson, M.D. Philadelphia, Lea and Febiger, 1974. Pp. 163. Illustrated. (\$9.75)

This volume is a credit to its author. It does not give all the answers; it does, however, present most of the problems which the blood bank personnel may expect to encounter and to which they should direct their attention.

Quotable contents — "It is a reasonable expectation that in the future packed red cells will be used in at least 80 per cent of transfusions." Concerning blood compatibility tests — "The situation also demands the cooperation of the clinician. He must recognize that pre-transfusion testing can be complex and requires both time and the services of skilled personnel. It cannot be done at a whim or moment's notice. *Any childish notion that setting up a clamor will speed the process must be abandoned*; the clinician must know and use temporizing measures that will support the patient until suitable blood can be obtained." Also — "to give whole blood or plasma to a patient whose red cells are T activated is to hazard a transfusion reaction."

Discussion of how to establish a frozen blood service and problems pertaining to blood components, i.e., RBC, plasma, platelets, leukocytes, factor VIII, factor IX, fibrinogen, and Rh immune globulin are authoritatively presented.

The poet Robert Burns wrote — "Some books are lies from end to end." This volume contradicts such thought. It is filled with gems from cover to cover. It should be a part of the library in every blood bank. An excellent index is at the end of the volume.

T. K. Rathmell, M.D.

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See Pages 270, 271

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## JOURNAL

OF THE MEDICAL SOCIETY OF NEW JERSEY

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209th Annual Meeting  
May 31-June 3 — Cherry Hill

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**APRIL 1975**

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## EDITORIALS

### If You Don't Play, Don't Complain!

Some of us who do not play the game, whether it be football, baseball, or basketball, love to criticize the players and complain about "our team" when it loses (or rejoice when it wins).

Like it or not American and New Jersey Medicine have big problems and it is not a game. Nevertheless, there are physicians in this State (practitioners in solo and group practice, full-time hospital, government, or university employees) who indulge in this masochistic pastime. They criticize the "medical establishment" (AMA, MSNJ, and county components) for acts of omission and commission and yet play no active role in the pursuits of medicine outside their own little practice or teaching microcosm. The devoted members of the profession who give endless and countless hours of time to board and committee meetings in Trenton, Chicago, and elsewhere for the welfare of all of us — and our patients — are often rewarded by a verbal kick in the teeth!

The aggressive fringe which has gotten interested in its own approach, through medical guilds and unions, is not likely to solve the major problems in medicine. Threats of strikes, withholding participation in hospital audit committees and utilization review functions, and the like, can easily be outmaneuvered by government and can only further damage the public image of American Medicine.

If you want to complain, join the team. Don't just pay your dues and sit back. Come to Cherry Hill — May 31 to June 3 — to the 209th Annual Meeting, MSNJ, where Governor Byrne will be the keynote speaker at the First Annual Governor's Conference on Questions Affecting Health Care Delivery. Speakers will also deal with government — mandated accountability, national health insurance, and other sensitive issues.

Ladies and gentlemen, this is your life! If you don't play the game, don't complain if your team loses.

A.K.

## Problems in Medicine

The Medical Society of New Jersey was well represented at the 1975 AMA National Leadership Conference held in Chicago from January 24 to 26, 1975. All the officers attended, as well as the Executive Director and at least a dozen other members.

Beginning with a panel on National Health Insurance and ending with a discussion of common concerns shared by the American Hospital Association and the American Medical Association, there were also addresses by the Honorable Al Ullman, Chairman of the House Ways and Means Subcommittee on Public Health and Environment; Dr. Laurence J. Peter (author of the famous "Peter Principle"); and Dr. Jack Lewis, Chairman of the AMPAC Board of Directors.

Among the topics discussed were the following problems that all of us must face in the immediate years ahead:

(1) Professional Liability — How do we solve this immediate dilemma which involves three vested interests: the insurance companies, who say they can't afford the annual cost of three to seven billion dollars; the physicians, who are being sued for even "unexpected" results and would like a more realistic definition of "malpractice;" and the trial lawyers, who make a living on contingency fees?

(2) PSRO's — Does the absoluteness of proposed standards make us even more open to liability? How confidential will be the reviews required by law?

(3) Certificate of Need — How effective will this process be, when it has yet to be proved that it either saves money or improves the quality of health care? How close will it come to controlling the private practice of the individual physician in his office. Are the HMO's really needed, or is it true that, "They that are whole need not a physician?"

(4) The quality of life — How can we as medical men give guidance to the difficult decisions that face us in an age of technology? What lives are worth saving — all? . . . some? . . . or just the "healthy?" When do we pull the plug? (And who



pulls it?) When is the cost of salvaging a patient too much for a family (or society) to bear?

(5) Medical Manpower — When do we say we have enough physicians in the right places? How do we define duties, responsibilities and liabilities of physician assistants, nurse technicians, and emergency medical personnel? Do we phase out foreign medical graduates or insist on stricter standards of language and practice?

(6) Health Planning — How involved should consumers become? How do we get more physicians interested? Who will have the final say on needed services and facilities? Is health a right or a privilege?

(7) National Health Insurance — Do we build on our present set-up or revise the whole system? How much can society afford if the voluntary system fails?

(8) Negotiation — When do we learn to work with our colleagues in health care (hospital associations, departments of health, boards of medical examiners, and even our government, which is US) and try to solve these problems? Rather than arguing across the table with each other, wouldn't it be more productive to work together and accept these problems as true challenges for the future?

J. S. Madara, M.D.

## A Program in Action: Four Ingredients

A successful continuing medical education program in a community hospital can be accomplished only if it answers a *need*. In my opinion, the need is to provide quality patient care to all. The delivery of quality health care presents many complex problems. The vast amount of new information being presented to us is overwhelming. Technological advances in diagnosis and treatment demand new theories, modalities, and methods of treatment. Socio-economic problems and public attitudes add to the complexity of the problem. The need is real, so continuing medical education is no longer a privilege but a requirement, as one means to quality patient care.

There are four ingredients for implementation of an accredited community hospital program.

The first is a total *commitment* on the part of all concerned, including the hospital medical staff, the administration, and the board of trustees. The initiative to this commitment may originate from any of the three, but there is no pattern as to how this commitment originates, so long as it is made, and so long as each group gives its total support.

The second ingredient is *communication*. The goals and objectives are essential for complete understanding and this can be accomplished only through communication. Lack of proper communication may eventually cause a program to fail, so clarity in communication must be stressed. One cannot assume or take for granted that the program may be understood by all who have committed themselves; we must be certain. As the program progresses and changes, it is important that all concerned be informed. In this manner, full support is attainable.

The third ingredient is *cooperation*, primarily between the medical staff and hospital administration. There must be total input and cooperation between the voluntary medical staff, the full-time, hospital-based staff, if they are present, the house staff, if your hospital is fortunate enough to have house staff, as well as the nurses and allied health personnel. The cooperation among these groups must be demonstrated through involvement, through the use of voluntary intra-professional incentives to achieve quality patient care. Nurses and allied health personnel are teachers in their areas of expertise, but they will be students to improve their skills and knowledge.

The fourth ingredient is *coordination* of activities. This may apply to a community hospital, or to a community where more than one hospital exists. All too often we have seen duplication of programs because of the lack of coordination. This had led to a dilution of audiences to the point where very few may attend; appropriate organization and coordination can prevent this.

These basic requirements are necessary to put a "Program in Action." J. A. Rogers, M.D.

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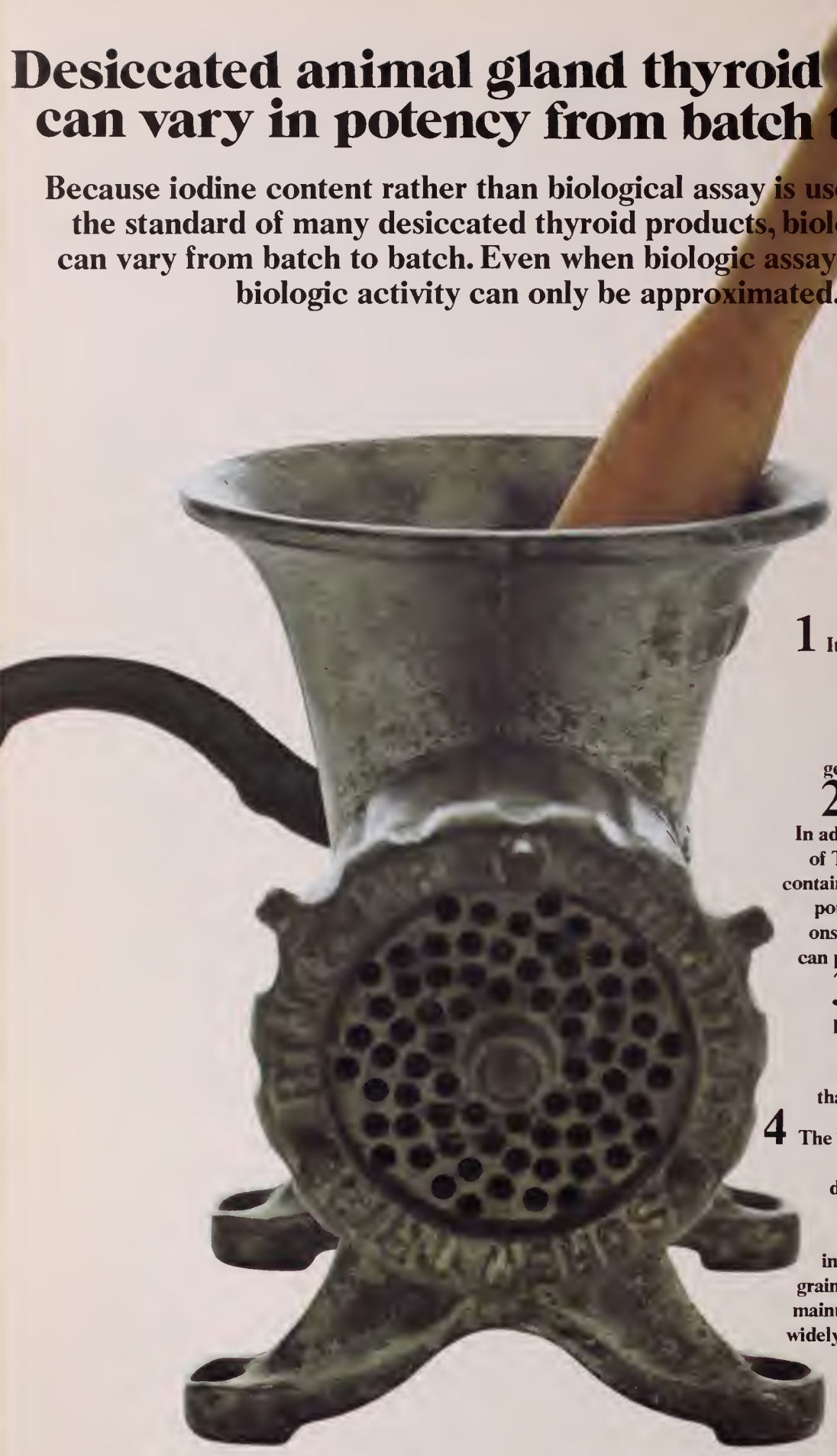
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**2** Of therapeutic concern: In addition to varying amounts of T<sub>4</sub>, desiccated thyroid may contain varying amounts of T<sub>3</sub>, a potent compound with rapid onset and fleeting action that can produce metabolic surges.

**3** Even when kept under proper storage conditions, desiccated thyroid deteriorates more rapidly than the synthetic hormone.

**4** The "usual maintenance dose" for the widely prescribed desiccated thyroid is "from 1 grain to 3 grains per day, but it may vary, in individual patients from 1/2 grain to 10 grains."<sup>1</sup> The "usual maintenance dose" of the most widely prescribed thyroglobulin (which is also a desiccated thyroid product) is "0.5 to 3.0 grains daily."<sup>2</sup>





# Every batch of Synthroid® T<sub>4</sub> is of controlled potency. (sodium levothyroxine, U.S.P.) FLINT

SYNTHROID is T<sub>4</sub>. It provides your patients with everything they need for complete thyroid replacement therapy.

**1** Sodium levothyroxine is *not derived* from any animal gland source. It is a synthetic and, since sodium levothyroxine is the only active ingredient, its weight is the sole determinate of potency.

**2** SYNTHROID (sodium levothyroxine) is T<sub>4</sub> which is converted by the patient to T<sub>3</sub> at the cellular level, thereby providing a physiologic source and amount of T<sub>3</sub> to meet metabolic needs for complete thyroid replacement therapy. Because the onset of effect is slower and more steady, the possibility of sudden metabolic surges is reduced with SYNTHROID therapy.

**3** SYNTHROID (sodium levothyroxine) products have a longer and more reliable shelf life than Thyroid U.S.P. when kept under the same proper storage conditions. There is no animal protein present in SYNTHROID products.

**4** A recent study of 44 patients with hypothyroidism indicates that 89 percent of the patients were maintained with doses of L-thyroxine (SYNTHROID) between 100 mcg. and 200 mcg. (0.1 mg. and 0.2 mg.) per day.<sup>3</sup>

3. Stock, J.M., Surks, M.I., and Oppenheimer, J.H.: Replacement dosage of L-thyroxine in hypothyroidism. A re-evaluation. *New Engl. J. Med.* 290:529-33, 1974.

Eliminates many  
of the uncertainties of  
desiccated thyroid therapy.

**Synthroid®**  
(sodium levothyroxine, U.S.P.) FLINT



FLINT LABORATORIES  
DIVISION OF TRAVENOL LABORATORIES, INC.  
Deerfield, Illinois 60015

See reverse side for full prescribing information.

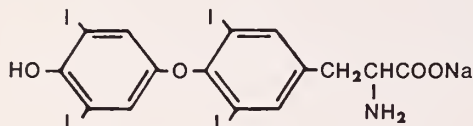
# Synthroid® (sodium levothyroxine, U.S.P.)\* FLINT

**Synthroid Tablets**—for oral administration  
**Synthroid for Injection**—for parenteral administration



## Description

SYNTHROID (sodium levothyroxine) Tablets and SYNTHROID Injection contain synthetic crystalline sodium levothyroxine (L-thyroxine). L-thyroxine is the principal hormone secreted by the normal thyroid gland.



Sodium Levothyroxine

## Actions

SYNTHROID (sodium levothyroxine) Tablets, taken orally, provide hormone that is readily absorbed from the gastrointestinal tract. SYNTHROID Injection is effective by any parenteral route. Following absorption, the synthetic L-thyroxine provided by SYNTHROID products cannot be distinguished from L-thyroxine that is endogenously secreted. Each is bound to the same serum proteins and each exhibits a six to seven day circulating half-life in the euthyroid individual.

Both SYNTHROID products will provide L-thyroxine as a substrate for physiologic deiodination to L-triiodothyronine. Therefore, patients taking SYNTHROID products will demonstrate normal blood levels of L-triiodothyronine even when the thyroid gland has been surgically removed or destroyed by radioiodine. Administration of levothyroxine alone will result in complete physiologic thyroid replacement.

## Indications

SYNTHROID (sodium levothyroxine) products serve as specific replacement therapy for reduced or absent thyroid function of any etiology. SYNTHROID Injection can be used intravenously whenever a rapid onset of effect is critical, and either intravenously or intramuscularly in hypothyroid patients whenever the oral route is precluded for long periods of time.

## Contraindications

There are no absolute contraindications to SYNTHROID (sodium levothyroxine) therapy. Relative contraindications include acute myocardial infarction, uncorrected adrenal insufficiency and thyrotoxicosis. (See WARNINGS)

## Warnings

Patients with cardiovascular diseases warrant particularly close attention during the restoration of normal thyroid function by any thyroid drug. In such cases, low initial dosage increased slowly by small increments is indicated. Occasionally, the cardiovascular capacity of the patient is so compromised that the metabolic demands of the normal thyroid state cannot be met. Clinical judgment will then dictate either a less-than-complete restoration of thyroid status or reduction in thyroid dosage.

Endocrine disorders such as diabetes mellitus, adrenal insufficiency (Addison's disease), hypopituitarism and diabetes insipidus are characterized by signs and symptoms which may be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such patients may aggravate the intensity of previously obscured symptoms and require appropriate adjustment of therapeutic measures directed at these concomitant disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Patients on anticoagulant therapy should have frequent prothrombin determinations when instituting thyroid replacement to gauge the need to reduce anticoagulant dosage.

## Precautions

Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) Tablets, the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

## Adverse reactions

Adverse reactions are due to overdose and are those of induced hyperthyroidism.

## Dosage and administration

For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) Tablets daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occurs and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID Injection may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsiveness within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the oral dosage form, SYNTHROID Injection produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting a daily oral dose.

In the presence of concomitant heart disease, the sudden administration of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks. Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema coma and the cardiovascular disease. Clinical judgment in this situation may dictate smaller intravenous doses of levothyroxine.

SYNTHROID Injection by intravenous or intramuscular routes can be substituted for the oral dosage form when ingestion of SYNTHROID Tablets is precluded for long periods of time.

## How supplied

SYNTHROID (sodium levothyroxine) Tablets are supplied as scored, color-coded compressed tablets in 6 concentrations: 25 mcg (0.025 mg)—orange . . . 50 mcg (0.05 mg)—white . . . 100 mcg (0.1 mg)—yellow . . . 150 mcg (0.15 mg)—violet . . . 200 mcg (0.2 mg)—pink . . . 300 mcg (0.3 mg)—green. Depending on strength, these tablets are available in bottles of 100, 500, 1000 and 5000.

SYNTHROID (sodium levothyroxine) for Injection is supplied in 10 ml vials containing 500 mcg of lyophilized active ingredient and 10 mg of Mannitol, U.S.P. A separate 5 ml vial containing Sodium Chloride Injection, U.S.P. is provided as a diluent.

## Directions for reconstitution

Reconstitute the lyophilized sodium levothyroxine by aseptically adding 5 ml of the Sodium Chloride Injection, U.S.P. to the vial. Shake vial to insure complete mixing. Use immediately after reconstitution. Discard any unused portion.



**FLINT LABORATORIES**  
DIVISION OF TRAVENOL LABORATORIES, INC.  
Deerfield, Illinois 60015

\*U.S. Pat. 2,889,363

# 209th ANNUAL MEETING

## The Medical Society of New Jersey

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James A. Rogers, M.D.  
President

Arthur Bernstein, M.D.  
Chairman, Annual Meeting  
Committee and Committee  
on Scientific Program

Francis X. Keeley, M.D.  
Chairman, Committee on  
Scientific Exhibits

Marion R. Walton  
Convention Manager

May 31-June 3, 1975

Garden State  
Convention Center  
Cherry Hill



## 1975 Annual Meeting

### RESUMÉ OF EVENTS

#### Registration

Saturday, May 31 from 8 a.m. to 4:30 p.m.  
Sunday, June 1 from 9 a.m. to 4:30 p.m.  
Monday, June 2 from 8:30 a.m. to 4:30 p.m.  
Tuesday, June 3 from 9 a.m. to noon

#### House of Delegates

First Session—Saturday, May 31 at 2 p.m.  
Second Session—Sunday, June 1 at 3:15 p.m.  
Third Session (part I)—Monday, June 2, 3:15 p.m.  
Third Session (part II)—Tuesday, June 3 at 9 a.m.

#### Reference Committees

Saturday, May 31 at 3 p.m.—  
Reference Committee on Const. and Bylaws  
Reference Committees "A", "B", "D", "G"  
Sunday, June 1 at 10 a.m.—  
Reference Committees "C", "E", "F", "H"

#### General Session

Sunday, June 1 at 3:45 p.m.—President's Farewell Address; Inauguration of Incoming President; Address of Incoming President

#### Golden Merit Award

Sunday, June 1 at 4:30 p.m. Honored will be those members of MSNJ who have held the degree of Doctor of Medicine for fifty years. Reception immediately following ceremony.

#### Motion Picture Theater

Saturday, May 31 at 2 p.m. Sunday and Monday, June 1 and 2 at 10 a.m. and 2 p.m. Program arranged and presented through the cooperation of Rache Laboratories, Division of Hoffmann-La Roche, Inc., Nutley.

#### Scientific Program: Sections

Sunday, June 1 at 9 a.m.  
Emergency Medicine  
Sunday, June 1 at 9:30 a.m.  
Allergy, Otolaryngology  
Allergy, Otolaryngology  
Cardiovascular Diseases, Family Practice, Medicine  
Radiology, Urology  
Sunday, June 1 at 1 p.m.  
Anesthesiology, Medicine  
Clinical Pathology, Rheumatism  
Family Practice  
Neurosurgery and Neurology, Plastic and Reconstructive Surgery  
Ophthalmology  
Psychiatry  
Monday, June 2 at 8:30 a.m.  
Surgery

Monday, June 2 at 9 a.m.

Dermatology  
Orthopedic Surgery  
Monday, June 2 at 9:30 a.m.  
Chest Diseases, Family Practice, Medicine  
Monday, June 2 at 1 p.m.  
Gastroenterology and Proctology  
Physical Medicine and Rehabilitation

**Convention Celebration**—Saturday, May 31 7 p.m.—Cocktails-Dinner-Entertainment-Dancing

**Inaugural Reception**—Sunday, June 1, 6:30 p.m. (Honoring President-Elect McGuire)

**Dinner Dance**—Monday, June 2 at 8 p.m. (Honoring President and Mrs. Rogers)  
Dancing and Entertainment

#### Miscellaneous

Saturday, May 31 at 8:30 a.m.—Governor's Conference on Delivery of Health Care  
Saturday, May 31 at 11:30 a.m.—Meeting, New Jersey Committee on Trauma; 12 noon—Luncheon; 1:30 p.m.—Spencer T. Snedecor Trauma Oratorian  
Saturday, May 31 at 4 p.m.—Executive Council, New Jersey Chapter, American Academy of Pediatrics; 6 p.m.—Cocktails; 7 p.m.—Dinner  
Sunday, June 1 at 12 noon—Luncheon  
New Jersey State Society of Anesthesiologists  
New Jersey Academy of Ophthalmology and Otolaryngology  
Sunday, June 1 at 12:30 p.m.—Luncheon  
New Jersey Chapter, American College of Emergency Physicians  
New Jersey Allergy Society  
Sunday, June 1 at 4:30 p.m.—Meeting  
Society for the Relief of Widows and Orphans of Medical Men of New Jersey  
Monday, June 2 at 8 a.m.—JEMPAC Breakfast  
Monday, June 2 at 10 a.m.—Meeting  
New Jersey Obstetrical and Gynecological Society  
Monday, June 2 at 12:30 p.m.—Luncheon  
New Jersey Dermatological Society  
New Jersey Chapter, American College of Chest Physicians  
Monday, June 2 at 1:30 p.m.—Luncheon  
New Jersey Orthopaedic Society  
Monday, June 2 at 5:30 p.m.—JEMPAC Wine and Cheese Reception  
Monday, June 2 at 5:30 p.m.—Alumni Reception, Jefferson Medical College

# 1975 Annual Meeting

## DAILY SCHEDULE

Saturday through Tuesday  
May 31 to June 3

Cherry Hill  
Convention Center

### Friday, May 30, 1975

4:00 p.m. — Board of Trustees — Diamond Room  
Lower Level, Cherry Hill Inn

### Saturday, May 31, 1975

8:00 a.m. — Registration Opens — Garden State  
Convention Center, Main Level  
8:30 a.m. — First Annual Governor's Conference  
on Unresolved Questions Affecting the  
Delivery of Health Care — Garden  
State Convention Center  
11:30 a.m. — Meeting: New Jersey Committee on  
Trauma, American College of  
Surgeons — Colony East, Lower  
Level, Cherry Hill Inn  
12 noon — Exhibits Open — Garden State  
Convention Center, Main Level  
12 noon — Luncheon — New Jersey Committee  
on Trauma, American College of  
Surgeons — Colony West, Lower  
Level, Cherry Hill Inn  
1:30 p.m. — Annual Spencer T. Snedecor Trauma  
Oration, New Jersey Committee on  
Trauma, American College of  
Surgeons — Colony East, Lower  
Level, Cherry Hill Inn  
2:00 p.m. — House of Delegates — Garden State  
Convention Center, Fourth Level  
2:00 p.m. — Motion Picture Theater — Garden  
State Convention Center, Second  
Level  
3:00 p.m. — Reference Committees: Constitution  
and Bylaws; "A"; "B"; "D"; "G"  
Garden State Convention Center  
4:00 p.m. — Meeting: Executive Council, New  
Jersey Chapter, American Academy  
of Pediatrics — Currier and Ives  
Room, Lobby Floor, Cherry Hill Inn  
5:00 p.m. — Nominating Committee — Foyer,  
Lobby Floor, Cherry Hill Inn  
7:00 p.m. — Officers' Dinner (by invitation only)  
— State Rooms, (Empire, Garden  
and Keystone)  
Lower Level, Cherry Hill Inn  
7:00 p.m. — Convention Revelry — Cocktails,  
Dinner, Entertainment, Dancing —  
Colony Room and Tavern, Lower  
Level, Cherry Hill Inn  
7:00 p.m. — Dinner — New Jersey Chapter,  
American Academy of Pediatrics —  
Diamond Room, Lower Level, Cherry  
Hill Inn

### Sunday, June 1, 1975

9:00 a.m. — Registration and Exhibits Open —  
Garden State Convention Center  
9:00 a.m. — Scientific Session:  
Emergency Medicine — Garden  
State Convention Center  
9:30 a.m. — Scientific Sessions:  
Allergy, Otolaryngology — Garden  
State Convention Center  
Cardiovascular Diseases, Family  
Practice, Medicine — Garden State  
Convention Center  
Radiology, Urology — Garden State  
Convention Center  
10:00 a.m. — Scientific Session:  
Pediatrics — Garden State Con-  
vention Center  
10:00 a.m. — Motion Picture Theater — Garden  
State Convention Center, Second  
Level  
10:00 a.m. — Reference Committees:  
"C"; "E"; "F"; "H"  
Garden State Convention Center  
12 noon — Luncheons:  
New Jersey State Society of  
Anesthesiologists — Rickshaw Inn  
New Jersey Academy of  
Ophthalmology and Otolaryngology  
— Rickshaw Inn  
12:30 p.m. — Luncheons:  
New Jersey Chapter, American  
College of Emergency Physicians —  
Rickshaw Inn  
New Jersey Allergy Society —  
Rickshaw Inn  
1:00 p.m. — Scientific Sessions:  
Anesthesiology, Medicine — Garden  
State Convention Center  
Clinical Pathology, Rheumatism —  
Garden State Convention Center  
Family Practice — Garden State  
Convention Center  
Neurosurgery and Neurology, Plastic  
and Reconstructive Surgery —  
Garden State Convention Center  
Ophthalmology — Garden State  
Convention Center  
Psychiatry — Garden State Con-  
vention Center  
2:00 p.m. — Motion Picture Theater — Garden  
State Convention Center, Second  
Level

- 3:15 p.m. — House of Delegates (election) — Garden State Convention Center, Fourth Level
- 3:45 p.m. — General Session: Addresses by President Rogers and President-Elect McGuire — Garden State Convention Center, Fourth Level
- 4:30 p.m. — Golden Merit Award Ceremony — Garden State Convention Center, Fourth Level  
Reception for Award Recipients and Their Families
- 4:30 p.m. — Meeting: Society for the Relief of Widows and Orphans of Medical Men of New Jersey — Currier and Ives Room, Lobby Floor, Cherry Hill Inn
- 6:30 p.m. — Inaugural Reception — Presidential Ball Room, Ground Floor, Cherry Hill Inn.

### **Monday, June 2, 1975**

- 8:00 a.m. — JEMPAC Breakfast — Independence Room, Lower Level, Cherry Hill Inn
- 8:30 a.m. — Registration Opens — Garden State Convention Center, Main Level
- 8:30 a.m. — Scientific Session: Surgery — Garden State Convention Center
- 9:00 a.m. — Exhibits Open — Garden State Convention Center, Main Level
- 9:00 a.m. — Scientific Sessions: Dermatology — Garden State Convention Center  
Orthopedic Surgery — Garden State Convention Center
- 9:30 a.m. — Scientific Session: Chest Diseases, Family Practice, Medicine — Garden State Convention Center
- 10:00 a.m. — Motion Picture Theater — Garden State Convention Center, Second Level

- 12:30 p.m. — Luncheons:  
New Jersey Dermatological Society — Pagoda Room, 3rd floor, Rickshaw Inn  
New Jersey Chapter, American College of Chest Physicians (Annual Selman A. Waksman Lecture) — Rickshaw Inn
- 1:00 p.m. — Scientific Sessions: Gastroenterology and Proctology — Garden State Convention Center  
Physical Medicine and Rehabilitation — Garden State Convention Center
- 1:30 p.m. — Luncheon:  
New Jersey Orthopaedic Society — Tea House, 1st floor, Rickshaw Inn
- 2:00 p.m. — Motion Picture Theater — Garden State Convention Center, Second Level
- 3:00 p.m. — Exhibits Close
- 3:15 p.m. — House of Delegates — Garden State Convention Center, Fourth Level
- 5:30 p.m. — JEMPAC: Cheese and Wine Reception — Garden State Convention Center
- 5:30 p.m. — Alumni Reception: Jefferson Medical College — Cherry Hill Inn  
Alumni Reception: Hahnemann Medical College — Cherry Hill Inn
- 8:00 p.m. — Dinner-Dance Honoring President and Mrs. Rogers — Presidential Ballroom, Upper Level, Cherry Hill Inn

### **Tuesday, June 3, 1975**

- 9:00 a.m. — Registration Opens — Garden State Convention Center, Main Level
- 9:00 a.m. — House of Delegates — Garden State Convention Center, Fourth Level
- 12 noon — Registration Closes
- 4:00 p.m. — Board of Trustees — Garden Room, Lower Level, Cherry Hill Inn

## **GOLDEN MERIT AWARDS**

Sunday, June 1 at 4:30 p.m.

The Golden Merit Award, established in 1957, is conferred upon every member of The Medical Society of New Jersey who has held the degree of Doctor of Medicine for fifty years. A list of recipients will be published in a subsequent issue of *The Journal*.

**Reception Immediately Following Ceremony**



—1975 Annual Meeting—

## CONVENTION REVELRY

Saturday, May 31

Colony Tavern

**Cocktails — 7 to 8 p.m.**

DeSio Duo (accordionist and violinist)

**Dinner — 8 to 9 p.m.**

DeSio Duo (accordionist and violinist)

**Entertainment — 9 to 10 p.m.**

Jack Davis Band

Bobby Burnett, MC-Singer-Comedian

Anoush Karoun, Belly Dancer

**Dancing — 10 to 11 p.m.**

Seldors (commercial and rock band)

11 to 11:45 p.m.

Jack Davis Band (commercial and dance band)

11:45 p.m. to 12:30 a.m.

Seldors

—1975 Annual Meeting—

## DINNER-DANCE

Monday, June 2

8:00 p.m.

### Honoring

President and Mrs. James A. Rogers

### Welcome

Mrs. James Brennan, President  
Woman's Auxiliary

### Introductions

Mrs. Frank Doggett, President-Elect  
Woman's Auxiliary

John J. McGuire, M.D., President-Elect  
The Medical Society of New Jersey

### Presentations

Fellow's Key

To: James A. Rogers, M.D., President

By: Matthew E. Boylan, Immediate Past-President

Fellowette's Pin

To: Mrs. James Brennan, President  
Woman's Auxiliary

By: James A. Rogers, M.D., President  
The Medical Society of New Jersey

### Continuous Entertainment Until Midnight

**One Step Up (Commercial, Vocal, and Dance) Band**  
Larry Elgart Orchestra and Vocalist

## 1975 Annual Meeting

# REFERENCE COMMITTEES

Saturday, 3:00 p.m.

Sunday, 10:00 a.m.

May 31, 1975

June 1, 1975

### Reference Committee on Constitution and Bylaws

Garden State Convention Center

Reports of the:

- Committee on Revision of Constitution and Bylaws
- Amendments to Constitution
- Amendments to Bylaws

### Reference Committee "A"

Garden State Convention Center

Reports of the:

- President
- Board of Trustees
- Secretary
- Judicial Council
- Executive Director
- Committee on Credentials

### Reference Committee "B"

Garden State Convention Center

Reports of the:

- Treasurer
- Committee on Finance and Budget
- Committee on Medical Student Loan Fund
- Committee on Physicians' Relief Fund
- Committee on Publication

### Reference Committee "C"

Garden State Convention Center

Reports of the:

- Medical-Surgical Plan of New Jersey
- Committee on Medical Defense and Insurance
- Committee on Retirement Plan for Physicians

### Reference Committee "D"

Garden State Convention Center

Reports of the:

- Committee on Medical Education
- Committee on Medicine and Religion
- Committee on Emergency Medical Care

### Reference Committee "E"

Garden State Convention Center

Reports of the:

- Council on Legislation
- Council on Public Relations

### Reference Committee "F"

Garden State Convention Center

Reports of the:

- Council on Medical Services, and its Special Committee on Occupational Health, Workmen's Compensation and Rehabilitation
- Council on Mental Health, and its Special Committees on:
  - Alcoholism
  - Drug Abuse
  - Emotional Disorders of Childhood and Adolescence
  - Mental Retardation
  - Neurological and Related Disorders

### Reference Committee "G"

Garden State Convention Center

Reports of the:

- Council on Public Health, and its Special Committees on:
  - Cancer Control
  - Child Health
  - Chronically Ill and Aging
  - Conservation of Vision, Hearing, and Speech
  - Environmental Health
  - Maternal and Infant Welfare

### Reference Committee "H"

Garden State Convention Center

Reports of the:

- Committee on Annual Meeting, and its Special Committees on:
  - Scientific Exhibits
  - Scientific Program
- Committee on Honorary Membership
- Advisory Committee to the Woman's Auxiliary
- Nominations for Emeritus Membership

**The Committee on Credentials will meet at the Registration Desk each morning of the meeting.**

## 1975 Annual Meeting

# HOUSE OF DELEGATES

Saturday, 2:00 p.m.

Sunday, 3:15 p.m.

Monday, 3:15 p.m.

Tuesday, 9:00 a.m.

May 31, 1975

June 1, 1975

June 2, 1975

June 3, 1975

President—James A. Rogers, M.D., Paterson

Secretary—Charles L. Cuniff, M.D., Jersey City

Speaker—Henry J. Mineur, M.D., Cranford

Vice Speaker—Edward Foord, M.D., Burlington

## Sessions

### Saturday, May 31, 1975—2 p.m.

#### First Session

##### Invocation

The Reverend Watson E. Neiman, M.D.  
Assistant to the Rectors, Trinity Episcopal  
Church, Moorestown and Church of the  
Advent, Cape May

##### Call to Order by the Speaker

Henry J. Mineur, M.D.

##### Organization of the House

##### Transactions of 1974 House of Delegates

##### Transactions of 1974 Special Session

##### Introduction of Guests and Delegates from Other States

##### Annual and Supplemental Reports

##### Proposed Amendments to the Constitution and Bylaws

##### Resolutions

##### New Business

##### Announcements

### Sunday, June 1, 1975—3:15 p.m.

#### Second Session

##### Report of Nominating Committee

##### Election

##### President's Farewell Address

##### Inauguration of Incoming President

### Monday, June 2, 1975—3:15 p.m.

#### Third Session (Part I)

Reports of Reference Committees: "A", "B", "D",  
"G", Const. and Bylaws

### Tuesday, June 3, 1975—9 a.m.

#### Third Session (Part II)

Reports of Reference Committees: "C", "E", "F", "H"  
Unfinished Business

##### Adjournment

## OFFICES TO BE FILLED BY ELECTION — 1975 Annual Meeting

OFFICE	TERM	FROM	TO	INCUMBENT AND COUNTY
President-Elect	1 year	June 1975-June 1976		John J. McGuire, M.D. Essex
1st Vice-President	1 year	June 1975-June 1976		John S. Madara, M.D. Salem
2nd Vice-President	1 year	June 1975-June 1976		Frank R. Begen, M.D. Bergen
Secretary	1 year	June 1975-June 1976		Charles L. Cuniff, M.D. Hudson
Treasurer	1 year	June 1975-June 1976		Samuel J. Lloyd, M.D. Mercer
Trustees				
1st District	3 years	June 1975-June 1978		Edward G. Bourns, M.D. Union
1st District	3 years	June 1975-June 1978		William Greifinger, M.D. Essex
1st District	1 year	June 1975-June 1976		<sup>a</sup> Augustus L. Baker, M.D. Morris

<sup>a</sup>Appointed by Board of Trustees to serve until 1975 House election.



2nd District	3 years	June 1975-June 1978	Jahn J. Crasby, Jr., M.D. Hudson
2nd District	3 years	June 1975-June 1978	Richard E. Lang, M.D. Passaic
3rd District	3 years	June 1975-June 1978	David Eckstein, M.D. Mercer
3rd District	3 years	June 1975-June 1978	Haward D. Slabodien, M.D. Middlesex
4th District	3 years	June 1975-June 1978	I. Edward Ornaf, M.D. Camden
Judicial Councilors:			
1st District	3 years	June 1975-June 1978	Thomas S. P. Fitch, M.D. Union
4th District	3 years	June 1975-June 1978	Frederick W. Durham, M.D. Camden
AMA Delegates:			
	2 years	Jan. 1976-Dec. 1977	Louis F. Albright, M.D. Manmouth
	2 years	Jan. 1976-Dec. 1977	Joseph P. Dannelly, M.D. Hudson
	1 year	Jan. 1976-Dec. 1976	<sup>a</sup> George L. Benz, M.D. Essex
AMA Alternate Delegates:			
	2 years	Jan. 1976-Dec. 1977	Alfred A. Alessi, M.D. Bergen
	2 years	Jan. 1976-Dec. 1977	William J. D'Elia, M.D. Monmouth
	2 years	Jan. 1976-Dec. 1977	<sup>b</sup> Vacancy
	2 years	Jan. 1976-Dec. 1977	<sup>b</sup> Vacancy
Delegates and Alternate Delegates to Other States:			
New York:			
Delegate	1 year	1976 Annual Meeting	Albert F. Maricani, M.D. Mercer
Alternate	1 year	1976 Annual Meeting	Jasiah C. McCracken, Jr., M.D. Atlantic
Connecticut:			
Delegate	1 year	1976 Annual Meeting	Edward G. Bourns, M.D. Union
Alternate	1 year	1976 Annual Meeting	Gastone A. Milana, M.D. Atlantic
Administrative Councils:			
Legislation:			
5th District	3 years	June 1975-June 1978	Jahn S. Madara, M.D. Salem
6th Member	3 years	June 1975-June 1978	Wintan H. Jahnson, M.D. Bergen
Medical Services:			
5th District	3 years	June 1975-June 1978	Armanda F. Goracci, M.D. Gloucester
6th Member	3 years	June 1975-June 1978	David Flinker, M.D. Burlington
Mental Health:			
3rd District	3 years	June 1975-June 1978	Robert S. Garber, M.D. Mercer

<sup>b</sup>Vacancy created by increase in AMA Delegation

6th Member	3 years	June 1975-June 1978	Evelyn P. Ivey, M.D. Monmouth
Public Health: 5th District	3 years	June 1975-June 1978	Robert G. Salasin, M.D. Cape May
6th Member	3 years	June 1975-June 1978	Francis E. Rieman, M.D. Hudson
Public Relations: 2nd District	3 years	June 1975-June 1978	Frank R. Begen, M.D. Bergen
5th District	3 years	June 1975-June 1978	Gastone A. Milano, M.D. Atlantic
Standing Committees: Annual Meeting	3 years	June 1975-June 1978	<sup>c</sup> Robert E. Verdon, M.D. Bergen
Finance and Budget	3 years	June 1975-June 1978	Louis G. McAfoos, Jr., M.D. Camden
Medical Defense and Insurance	3 years	June 1975-June 1978	Paul J. Kreutz, M.D. Union
Medical Education	3 years	June 1975-June 1978	Edward H. Weiser, M.D. Sussex
Publication	3 years	June 1975-June 1978	John F. Marshall, M.D. Mercer
Woman's Auxiliary Advisory	3 years	June 1975-June 1978	William J. Roe, M.D. Bergen

<sup>c</sup>Ineligible for re-election, having served 3 consecutive terms

## Annual Spencer T. Snedecor Trauma Oration

Saturday, May 31, 1975

1:30 p.m.

Colony East, Lower Level, Cherry Hill Inn

### What's New in Burns?

CURTIS P. ARTZ, M.D. Professor of Surgery and  
Department Chairman, Medical College of South  
Carolina, Charleston

The New Jersey Committee on Trauma of the  
American College of Surgeons will present its An-  
nual Spencer T. Snedecor Trauma Oration on  
Saturday, May 31, during the 209th Annual  
Meeting of The Medical Society of New Jersey.  
Preceding the lecture, there will be a meeting of the  
Committee at 11:30 a.m. and a luncheon at 12  
noon in the Colony West, Lower Level, Cherry Hill  
Inn.

(Members of The Medical Society of New Jersey  
and other physicians are invited to attend.)

## 1975 Annual Meeting

### MOTION PICTURE THEATER

Saturday, May 31

Sunday, June 1

Monday, June 2

2 p.m.

10 a.m. and 2 p.m.

10 a.m. and 2 p.m.

Film program presented through the courtesy and cooperation of Rache Laboratories,  
Division of Hoffmann-LaRache, Inc., Nutley

**May 31 — Starting at 2 p.m.**

#### **Anatomy of the Cell — Marcel Bessis, M.D.**

This film reveals many details of the organelles of cells previously completely unknown. For example, in action studies of the living nucleus of a cell, we can see the chromosomes that become visible at the beginning of cell division, without knowing as yet one iota of the mechanism of their formation. However, research in the areas indicated by this film should throw light on the fundamental process of mitosis.

The extreme magnifications under which this film was photographed show clearly, for example, that the membrane surrounding the cell nucleus is composed of two layers instead of one — layers that same poisons cause to separate into a kind of pleural cavity that fills with fluid; but the layers are jointed by groups of what appear to be infinitesimal nipples that are really short tubes which may, through intermittent opening and closing, permit exchanges between the nucleus and the cytoplasm.

In the cytoplasm, groups of what appear to be merely filaments are actually flattened bags that fill to store secretory products such as — in the case of cells of the pancreas — ergastoplasm.

The death struggles of a granulocyte, fascinating in tremendous magnification, give a dramatic ending to "Anatomy of the Cell."

**(Presented through the courtesy of  
of E. R. Squibb & Sons, Inc.)**

#### **Death of a Cell — Marcel Bessis, M.D.**

Until recently knowledge of cell death and the various causes thereof, has been deduced from a study of chemically-stained dead cells. This is like trying to study human physiology-pathology by examining a cadaver.

The combination of phase-contrast microscopy and time-lapse photography has changed all this. One can now study the action of therapeutic drugs and poisons on the living cell.

In the film "Death of A Cell," the clinician can see in dramatic continuous action the complex anatomical changes that occur in cells during death produced by various mechanisms. The first is "death through fragmentation." Although the cellular movements shown take place over a period of hours, the screen shows protrusions appearing on the surface of the cytoplasm, and the fragmentation of the cell itself. Next, the screen shows cellular edema caused by exposing the cell to distilled water. Then a cell is exposed to rays from a small needle containing polonium. The effect of the radiation on the cell is visible almost immediately. Next, the screen shows a phagocyte cell ingesting rod-like germs and the mechanism of cell death that results. Pyknosis of a granulocyte is shown. A polymorph becomes a mononuclear corpse. Finally, to illustrate the most frequent mode of cell death, cellular aggression is shown. A cell that has turned cannibal throws out a pseudopod, locates a victim, engulfs it and digests it.

This film does not attempt to cover the entire subject of cell death, but it does give examples of a new research technique in a field which is largely still unexplored.

**(Presented through the courtesy of  
E. R. Squibb & Sons, Inc.)**

#### **Micropuncture of Cells by U.V. Microbeam — Marcel Bessis, M.D.**

The author and his associates have designed a device to irradiate with ultra-violet light a very tiny area of a cellular body, as small as .2 micron in diameter. This pictorial record shows in motion picture form the results that are obtained from irradiating various cells, either wholly or in part.

In a protozoan, for instance, the ultra-violet beam brings about the necrosis of only part of the cell. The camera shows how the cell, after being injured by the irradiation, gets rid of its injured part and resumes a normal existence. A white blood cell is given a tiny spot of irradiation in the caudal region. At first the cell has no visible pathological reaction, but after a short time small pseudopods appear all around the cell — a sure sign of agony. The author's



studies have shown that it is the point where the lesion occurs and the wave length of the irradiation which determine the type of death again observed.

A fascinating climax to the film starts with a picture of five white blood cells in good health and distinctly separated. One is irradiated. As soon as it starts to die, the remaining cells, lured by a substance secreted by the injured cell, approach the dying cell and surround it. Finally they pounce on the corpse and tear it apart. Phagocytosis of the dead cell occurs to such an extent that in the end it is impossible to find any remnants of the dead cell.

**(Presented through the courtesy of  
E. R. Squibb & Sons, Inc.)**

**Dynamics of Phagocytosis —  
A. T. Wilson, M.D., and  
Leo Leveridge, M.D.**

Unusually fine phase-contrast microscopy portrays the physiology of phagocytosis to provide students and physicians with insight into the mechanics of one of the natural body defense mechanisms against disease.

**(Presented through the courtesy of  
E. R. Squibb & Sons, Inc.)**

**June 1 — Starting at 10 a.m.**

**Rheumatoid Arthritis —  
N. P. Schenker, M.D.**

Several patients with severe arthritic changes are presented. The etiology, treatment and prognosis of the disease are discussed. Arthritic changes encountered at autopsy are presented during that section of the film devoted to the pathology of arthritis. Sequences showing changes visible on x-ray examination are included.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

**Treatment of Venereal Disease  
— Panel Discussion on Gonorrhea  
and Syphilis**

**Walter H. Smartt, M.D.  
William J. Brown, M.D.  
Harry Pariser, M.D.  
Eugene W. Fowinkle, M.D.  
Malcom T. Foster, Jr., M.D.  
David D. Sachs, M.D.**

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

**Emergency Airway**

A review of the anatomy involved demonstrates the proper site for inserting the tracheotomy tube with minimal potential for permanent damage and hazard to patient. Both live subjects and cadavers are utilized for the purpose of demonstration.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

**Sleep Disturbances in Clinically  
Depressed Patients —  
John P. Feighner, M.D.**

Sleep laboratory studies indicate that significant changes in the quantity and quality of sleep are usually present in clinically depressed patients. This filmed report discussed the nature of the sleep disturbances in depressed patients, and the effect upon depression of various antidepressant agency.

**(Presented through the courtesy  
of Pfizer Laboratories Div.)**

**June 1 — Starting at 2 p.m.**

**Stress and the Adaptation Syndrome —  
Norman P. Schenker, M.D.  
Leo L. Leveridge, M.D., and  
Hans Selye, M.D.**

The film depicts the effect of various physical and psychic stresses and the mechanisms by which the animal effects adaptation. An excellent exposition of Dr. Selye's monumental contribution toward the understanding of the interrelationship of stress and disease.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

**Causes and Dynamics of Alcoholism —  
N. P. Schenker, M.D., Hans Hoff, M.D.,  
E. B. Davies, M.D., H. Pullar-Strecker, M.D.,  
P. Uhry, M.D., N. Cirilli, M.D., and  
C. Lundquist, M.D. — introduced  
by Jules H. Masserman, M.D.**

A medical teaching film that demonstrates the development of alcoholic appetite and dependence in the cat due to environmental stress and tension and the potential for eliminating this appetite and dependence by re-education and the removal of predisposing environmental pressures.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

**Uncovering Depression in the  
Anxious Patient —  
Allen J. Enelow, M.D.**

STOP! LOOK! LISTEN! — something every school-child learns in order to detect the presence of an-coming danger when crossing a street. But when the anxious patient — often at a major crossroad of life — presents to the physician in the rush of a busy day, this valuable axiom is often forgotten and the patient is left unprotected against the dangers of an undetected coexisting depression.

The film is intended to reinforce the importance of Stop! Look! Listen! in actual practice and to encourage the physician to take the time — often only a few minutes — to explore the possibility of a hidden depression in every patient who presents with obvious anxiety. Equally important are the techniques of good interviewing demonstrated in the film — techniques that, if employed in daily practice, should enable the physician to make the diagnosis rapidly and efficiently and, as a result, to manage the condition effectively.

**(Presented through the courtesy of  
Merck Sharp & Dohme)**

**Psychocutaneous Disorders —  
Robert D. Mehlman, M.D., and  
Robert D. Briesemer, M.D.**

This film on the relationship between skin disorders and emotional distress discusses the various problems of diagnosis and treatment. Emphasis is on practical, clinical aspects of psychocutaneous disorders and includes illustrative case histories.

**(Presented through the courtesy of  
Roerig)**

**Narcolepsy — William C. Dement, M.D.**

This film describes the symptoms and diagnosis of narcolepsy, a disease of REM sleep. Narcoleptic patients are shown having sleep attacks, cataplectic attacks, and hypnogenic hallucinations. Dr. Dement's research has provided a definitive method of diagnosing narcolepsy using sleep recordings.

**(Presented through the courtesy of  
Roche Laboratories, Division of  
Hoffmann-LaRoche, Inc.)**

**June 2 — Starting at 10 a.m.**

**The Development of the Immune  
Capacity in the Newborn —**

(Prepared with the cooperation of Harvard

Medical School, Harvard School of Public Health, the National Institutes of Health, Danner Laboratories, University of California, and Children's and Obstetrics Hospital, Mexico City)

The mechanics of inherited immunity are discussed. This is followed by a description of the process by which the infant begins to develop its own immune response mechanisms. As a result of the interaction of lymphocytes and plasma cells following exposure to antigens, the effect of thymectomy upon the ability to develop immune response to foreign proteins is demonstrated experimentally.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

**Antimicrobials in Renal Failure —  
Calvin M. Kunin, M.D.**

Of primary importance in treating bacterial infection in patients who also have renal insufficiency is the maintaining of effective serum levels yet concomitantly avoiding overdosage. Half-life determination and pharmacokinetic properties of the antimicrobial can be a guide to dosage schedules.

Antimicrobial agents are placed in three general categories according to their dosage in patients with renal insufficiency: (1) Those requiring rather extensive dose alteration because of prolonged half-life; (2) those requiring moderate alteration; (3) those requiring slight alteration. The characteristics of currently used antimicrobials are then described accordingly.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

**Renal Transplant — Part I and Part II**

Part I discusses the theory behind finding a suitable donor for a kidney transplant. Emphasis is placed on tissue matching. The film describes a progressive program among Scandinavian hospitals cooperating in international kidney transplant donations.

Part II shows graphically and pictorially the actual surgical procedure of removing a donor's kidney and its transplantation into a recipient. The photography of the surgical procedure is striking.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

**June 2 — Starting at 2 p.m.**

**Patterns of Response —  
Charles J. Goodner, M.D.**

This film is devoted to investigation results on insulin secretion patterns in maturity-onset diabetics before and after treatment with Diabinese® (chlor-

prapamide). It presents Dr. Gaadner commenting on his own findings in the setting where his original study was performed — The Diabetes Clinic of the Harborview Hospital in Seattle.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

### **Clinical Problems in Diabetes Mellitus — Part I and Part II**

These two films cover the following subjects:

1. Predisposing factors of diabetes
2. Common and uncommon manifestations of diabetes
3. Complications of diabetes
4. Signs of diabetes progression
5. Diagnostic tools of choice
6. Treatment of choice
7. Prognosis

Both films utilize a technique requiring the active participation of the audience in solving problems in clinical diagnosis and treatment. At intervals during a case history, the films are briefly interrupted while the viewer evaluates what he has seen. When the film resumes, the viewer can match his answers with

those of a panel of specialists. The panelists react spontaneously, without prior knowledge of the case. Part I shows a patient, not previously known to be diabetic, presenting with cardiovascular complications, neuropathy, and retinopathy. Part II includes a patient with long-standing diabetes mellitus presenting with a condition that may or may not be a complication of diabetes.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

### **Dynamics of the Tubercle — Robert H. Ebert, M.D.**

Of interest not only to those with a deep interest in tuberculosis and its therapy but to all students and physicians, because excellent photomicrography of live tissue in the Clark rabbit-ear chamber vividly portrays the process of tissue and circulatory development and tissue destruction occasioned by infections. By means of time-lapse photography, the effect of antimicrobial therapy is demonstrated.

**(Presented through the courtesy of  
Pfizer Laboratories Div.)**

## **Governor's Conference**

**"Unresolved Questions Affecting Delivery of Health Care"**

**Saturday, May 31, 1975**

**8:30 a.m.**

Keynote Speaker: Honorable Brendan Byrne, Governor New Jersey

### **The Impact of Federal Legislation on Patient Expectation**

Hon. Lawrence J. Hagan, Attorney-at-Law, Washington, D.C.  
Former Congressman from Maryland

### **Modifying the Medical Service System To Meet the Expanded Health Care Needs**

LeRoy Pesch, M.D. President  
Michael Reese Hospital, Chicago

### **The Effects on Health Care Delivery of Government Mandated Accountability**

Allen R. Nelson, M.D., Salt Lake City, Member,  
National Council of Professional Standards



## 1975 Annual Meeting

# SCIENTIFIC PROGRAM

Sunday, June 1  
Monday, June 2

AMA Category I and  
MSNJ-CME Accredited

## Scientific Section Sessions

**All sessions acceptable for Category I, AMA Accreditation toward the Physicians' Recognition Award and MSNJ's CME Program. Accreditation has been provided and credit records will be kept by the Academy of Medicine of New Jersey.**

**Sunday Morning, June 1**

### Emergency Medicine

(Cosponsored by the New Jersey Chapter, American College of Emergency Physicians)

**9:00 a.m. The EKG in the Emergency Department**

HERBERT H. BUTLER, JR., M.D.,  
Emergency Department, Under-  
wood Memorial Hospital, Wad-  
bury

This paper will be an overview of basic electrocardiography which is relevant for the emergency physician. The diagnosis and treatment of common arrhythmias seen in the emergency department will be discussed. The subtleties of the various types of myocardial infarctions will be reviewed. There also will be case presentations of common electrocardiographic and therapeutic errors made in emergency situations.

**10:00 a.m. Abdominal Trauma**

MAURICE J. ELOVITZ, M.D., Direc-  
tor of Medical Education, Atlantic  
City Hospital; Associate Professor of  
Surgery, Hahnemann Medical  
College, Philadelphia

In the initial care of abdominal trauma primary considerations are assurance of airway patency and a means of delivery of parenteral fluids. Distinction between blunt vs perforated trauma of the abdomen must be made and related studies carried out. Of importance are history, physical examination, use of diagnostic measures such as x-ray, and abdominal paracentesis. Specialized studies such as angiography and urologic radiography may be indicated. Laboratory studies such as the CBC, indicated chemistries, and sequential studies are significant in management of the patient.

The most important lesson to be learned in assessing the traumatized abdomen is the need to follow the patient continuously with repeated physical examinations and studies as indicated. Abdominal trauma as it relates to specific organs involved is also to be considered. Special problems not usually encountered will also be discussed.

In general evaluation of the patient with a traumatized abdomen requires a high degree of suspicion and persistence for the proper and successful outcome to be achieved.

**11:00 a.m. Discussion**

**11:30 a.m. Business Meeting — Election of Officers**

**11:45 a.m. Visit to Exhibits**

**12:30 p.m. Luncheon — New Jersey Chapter, American College of Emergency Physicians**

Reservations: R. E. Schwaeble, M.D.  
19 Drake Road  
Mendham 07945

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

## VISIT THE EXHIBITS

**Sunday Morning, June 1**

## **Allergy Otolaryngology**

(Cosponsored by New Jersey Allergy Society and New Jersey Academy of Ophthalmology and Otolaryngology)

### **9:30 a.m. Intranasal Photography and Problems of Nasal Obstruction**

JOHN T. CONNELL, M.D., Director of Pediatric Allergy Research, St. Vincent's Hospital, New York

Summary not received

### **10:00 a.m. Surgical Treatment of Intranasal Obstruction**

MARK LEVEY, M.D., Associate Attending Otorhinolaryngologist, St. Barnabas Medical Center, Livingston; Secretary MSNJ's Section of Otolaryngology

The physician treating the patient with allergic rhinitis aggravated by bacterial infections, with hyperplastic changes and complicated by polyposis, is aware that this entity is particularly refractory to medical management. Fortunately, with modern drug therapy, the number of such cases is not great. Simple surgical procedures can add substantially to the patient's comfort. However, in severe cases, the nasal obstruction can become a nightmare to both the patient and the physician. Extensive intranasal sinus surgery offers the best answer to this difficult problem.

### **10:30 a.m. Prophylaxis in Allergy and ENT Problems**

JEROME GLASER, M.D., Clinical Professor of Pediatrics Emeritus, University of Rochester School of Medicine, Rochester, New York

Allergy, next to infection, is probably the most important cause of human symptomatology, accounting for one-third of all chronic conditions under the age of 17; nearly one-fourth of the days lost from school are due to asthma alone. Because of the marked tendency for allergic disease to be inherited, the potentially allergic child who should have prophylactic management is easily identified as one who has one or more allergic parents or siblings. Because pediatricians and nose and throat specialists are much interested in the common cold, a highly effective method for the prophylaxis of this disorder will be discussed.

### **11:00 a.m. Questions and Answers**

### **11:30 a.m. Business Meeting — Election of Officers**

### **11:45 a.m. Visit to Exhibits**

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### **12:30 p.m. Luncheon — New Jersey Allergy Society**

Reservations: M. J. Seligman, M.D.  
20 Wilsey Square  
Ridgewood 07450

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**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**Sunday Morning, June 1**

## **Cardiovascular Diseases Family Practice Medicine**

(Cosponsored by New Jersey Academy of Family Physicians and New Jersey Society of Internal Medicine)

### **9:30 a.m. Use and Abuse of Digitalis**

LEONARD S. DREIFUS, M.D., Professor of Medicine, Jefferson Medical College; Chief, Cardiorespiratory Department, Lankenau Hospital, Philadelphia

Recent advances in the assay of digitalis, glycosides, and the definition of bio-availability of digitalis compounds has altered our approach to digitalis therapy. Toxic manifestations of digitalis can no longer be tolerated and the incidents of these accidents has considerably lessened. Nevertheless, abnormalities of both impulse formation and conduction continue to emerge in patients treated with inappropriate doses of digitalis compounds and in particular, those with lowered serum potassium concentrations. Unmasking of both early and late digitalis excess effects can be demonstrated in the electrocardiogram. Finally, the effectiveness of digitalis as an inotropic agent, both in the normal and failing heart, must be considered.

### **10:45 a.m. Questions and Answers**

### **11:15 a.m. Business Meeting — Election of Officers**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**Two Credit Hours, American Academy of Family Physicians**

Sunday Morning, June 1

## Radiology Urology

(Cosponsored by New Jersey Chapter, American College of Radiology)

### 9:30 a.m. Management of Voiding Difficulties in Children with Non-Infected Urinary Tracts

SAMUEL J. ARNOLD, M.D., Attending Urologist, Marristown Memorial Hospital  
and

ROBERT B. AMBROSE, M.D., Chairman Urology Section, Department of Surgery, Marristown Memorial Hospital; Clinical Assistant Professor of Urology, CMDNJ-Rutgers Medical School, Piscataway

There is virtually an avalanche of literature on urinary infections in children but almost no paper devoted solely to the management of voiding difficulties in children who do not have urinary infections. In this paper we describe our experience and management of over 100 children who suffered with voiding difficulties and voiding difficulties only.

All children were studied with routine urinalyses, cultures, intravenous urography, and cystourethrography under anesthesia. In addition to endoscopy, all children underwent bagging. Any child who had a positive urine culture was removed from this series. In addition to the above studies, many had preoperative flow rates, symptom profiles, and urinary diary examinations.

Our experience convinces us that persistent voiding difficulties in the absence of urinary infection is generally due to easily remediable lower urinary tract disease, rarely, if ever, due to nerves, or to so-called neurogenic bladders.

### 10:30 a.m. Diagnosis of Bladder Carcinoma by IV Urography

ROGER A. BERG, M.D., Attending Radiologist, Marristown Memorial Hospital; Assistant Clinical Professor of Radiology, CMDNJ-Rutgers Medical School, Piscataway

We have analyzed the preoperative intravenous urograms in over 200 cases of primary bladder carcinoma. Although the malignancy is usually diagnosed at cystoscopy, occasionally it will present as a silent tumor, identifiable only on an IVP done for unrelated symptoms. In these patients the radiologist alone is responsible for the detection of the tumor. In many cases the changes on the IVP-

cystogram are subtle. Our discussion will focus on these not-so-obvious tumors; we will show how the radiologist can improve his diagnostic accuracy by paying close attention to the "routine" pre-and-post-voiding bladder films.

### 11:00 a.m. Mammography — Assets and Liabilities

DANIEL S. CUKIER, M.D., Attending Radiologist, Pascack Valley Hospital, Westwood; Chairman, New Jersey Radiation Therapy Society

The beneficial aspects of mammography have been clearly demonstrated. For the physician this is a pictorial record to supplement the subjective impression of breast disease obtained by palpation. The mammogram may then confirm or disprove a clinical impression of benign disease and conversely of malignancy. It will detect the coexistence of benign and malignant lesions often clinically overlooked. It will detect occult carcinomas.

For the patient the psychological benefits are many — the knowledge that early detection may mean less mutilating surgery; the preoperative "awareness" of the outcome of surgery if necessary; the reassurance to the cancerphobic patient; the high degree of accuracy in being informed of having a "normal" breast.

The liabilities of the examination are not to be overlooked. The availability of the examination leads to a possible "consumer demand" for its performance, when clinical judgment does not indicate its necessity. The lack of complete accuracy (false negative rate) poses dilemmas in management. The "indeterminate" diagnosis by the radiologist creates management problems for the physician, and leads to biopsies that might not otherwise have been performed (false positive report). Lastly, the cumulative radiation doses to the breast tissue from yearly mammograms has unknown possibly deleterious effects.

### 11:30 a.m. Business Meeting

### 11:45 a.m. Visit to Exhibits

Hour-for-Hour-Credit  
AMA Category I and MSNJ-CME

## GOLDEN MERIT AWARDS

4:30 p.m., Sunday, June 1  
Convention Center



**Saturday, May 31 and Sunday, June 1**

## **Pediatrics**

### **May 31**

- 4:00 p.m. Executive Council Meeting**  
New Jersey Chapter American Academy of Pediatrics
- 6:00 p.m. Reception and Cocktails**
- 7:00 p.m. Dinner/Meeting — Present Status of Recertification Process**  
FREDERIC D. BURG, M.D., Philadelphia, Associate Executive Director, American Board of Pediatrics

Summary not received

### **June 1**

- 10:00 a.m. Symposium on Physician's Role in the Sudden Infant Death Syndrome**  
MARIE VALDES-DAPENA, M.D., Professor of Pathology, Temple University School of Medicine; Associate Pathologist, St. Christopher's Hospital for Children, Philadelphia

Recent endeavors in the realm of epidemiology confirm and refine earlier observations regarding the vulnerability of the low birth weight or premature infant and the infant born to a young mother from a lower socio-economic stratum. In this country American Indians and Blacks are at greatest risk, in that order; the American Orientals are the least susceptible.

Presently the hypothesis of protracted sleep apnea has excited the greatest interest and research activity among investigators. It is being explored by academicians from at least three different directions: (a) infant sleep physiology, (b) infant respiratory and cardiac physiology, and (c) infant anatomic pathology. The real significance of this particular hypothetical pathogenetic mechanism for the Sudden Infant Death Syndrome has not yet been clarified.

FRED MANDELL, M.D., Associate in Medicine, Boston Children's Hospital Medical Center, Boston

Summary not received

JOYCE MORSE, R.N., Staten Island, New York, Education Coordinator, National Foundation for

Sudden Infant Death, New Jersey Chapter

Summary not received

HARRIS P. GOLDBERG, Ed.D., President, National Foundation for Sudden Infant Death, Council of Chapter Presidents; Associate Professor, Division of Professional Studies, Richmond College, CUNY, New York

Summary not received

**12 noon Business Meeting — Election of Officers**

**12:15 p.m. Visit to Exhibits**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

### **Sunday Afternoon, June 1**

## **Anesthesiology Medicine**

(Cosponsored by New Jersey State Society of Anesthesiologists and the Academy of Medicine of New Jersey)

**12 noon Luncheon — New Jersey State Society of Anesthesiologists**

Reservations: Robert K. Egge, M.D.  
St. Barnabas Medical Center  
Livingston 07039

**1:00 p.m. Preoperative Evaluation of the "Sick" Patients by Physiological Profile**

JOSEPH D. COHN, M.D., Clinical Assistant Professor of Surgery, CMDNJ — New Jersey Medical School, Newark; Assistant Director of Surgery, St. Barnabas Medical Center, Livingston

The Automated Physiologic Profile is a cost-effective method for performing physiologic analyses in the high-risk patient. Data obtained by paramedical personnel include cardiac output, intracardiac pressures, blood gas analyses, hemoglobin and lac-

tate determinations, as well as computations of derived data. Over a two-year period 636 studies were performed in 316 patients for diagnosis, therapy, preoperative assessment, and postoperative intensive management. Seventy-seven studies were performed for preoperative evaluation in 70 high-risk, elderly patients (age  $65.0 \pm \text{S.D. } 15.1$  years). Unsuspected physiologic abnormalities led to cancellation of surgery in ten patients where elective surgery was being considered. In emergency surgical interventions, the preoperative status correlated with patient survival. Automated physiologic assessment and monitoring allows detection and correction of physiologic abnormalities unsuspected by routine clinical and laboratory measurements.

**1:30 p.m. Office Management of Renal Insufficiency Before Dialysis**

JOHN F. MELE, M.D., Director of Nephrology and Hemodialysis, Jersey Shore Medical Center, Neptune

The optimum conservative management of chronic renal failure is the correction of reversible factors affecting renal function. This should consist of periodic assessment of renal function and end-organ effects with appropriate adjustment in: maintenance of optimum nutrition via diet, sodium and water intake, supplementary medications, control of blood pressure to minimize vascular disease, and control of secondary hyperparathyroidism and renal osteodystrophy.

As the underlying renal disease progresses, conservative management will not suffice. Associated medical complications will affect the patients' ability to tolerate severe renal insufficiency, thus necessitating chronic hemodialysis and/or transplantation.

**2:00 p.m. Surgical Objective and Techniques in Renal Transplantation**

HERBERT E. LIEB, M.D., Associate Attending in Urology, St. Barnabas Medical Center, Livingston

Surgical objectives in renal transplantation are divided into two broad categories. Obtaining viable kidneys in sufficient quantity requires a cooperative effort involving transplant centers in New Jersey and networks throughout the country. Operation life-line provides 24-hour coverage with experienced surgeons, urologists, and support personnel. The technique of transplanting kidneys although highly standardized must be accomplished flawlessly. Again, a team approach involving anesthesiologist, nephrologist, vascular surgeon, urologist, and pathologist is essential. Experience with over 40 cases in the past 24 months indicates excellent results based on national standards.

**2:30 p.m. Anesthetic Management of the Patient with Renal Transplantation**

HOWARD I. KORTIS, M.D., Director, Department of Anesthesiology, Newark Beth Israel Medical Center; Clinical Associate Professor of Anesthesiology, CMDNJ — New Jersey Medical School, Newark

The preoperative problems, criteria for anesthesia, the intraoperative management and postoperative considerations involved in the management of patients for renal transplantation will be discussed. A logical method of anesthetic management based upon pharmacologic considerations and clinical experience will be presented.

**3:00 p.m. Business Meeting — Election of Officers**

**3:15 p.m. Visit to Exhibits**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**Sunday Afternoon, June 1**

**Clinical Pathology  
Rheumatism**

(Co-sponsored by New Jersey Society of Clinical Pathologists and New Jersey Rheumatism Association)

**1:00 p.m. Laboratory Evaluation of the Patient with Arthritic Disorder**

DONALD R. TOURVILLE, Ph.D., Chief of Immunology, Department of Pathology, St. Barnabas Medical Center, Livingston

This paper will stress maximum but judicious use of laboratory aids that should be considered in evaluating a patient with an arthritic disorder. Specific laboratory aids, old and new, that can serve as a significant diagnostic adjunct in a specialty that is limited as to useful laboratory aids will be discussed. An in-depth discussion of the interpretation of laboratory tests will be emphasized.

**2:00 p.m. Clinical Application of Laboratory Methods to Evaluation of Arthritic Patient**

ROBERT W. LIGHTFOOT, JR., M.D.,  
Assistant Professor of Medicine,  
Cornell University Medical College,  
New York

The laboratory tests most often useful in the evaluation and treatment of patients with arthritis include assessment of synovial fluid for crystals, complement components, and culturable bacteria, and serum testing for the presence of antinuclear antibodies, anti-DNA antibodies, complement levels, and rheumatoid factor. The presence of intracellular birefringent crystals in synovial fluid is diagnostic of crystal synovitis due to pseudogout or gout. Depressed levels of synovial fluid complement in the presence of normal serum complement are very strongly suggestive of infection or rheumatoid arthritis. Obviously, a positive synovial fluid culture is diagnostic of a septic joint. Of the serum tests available, the latex fixation test for rheumatoid factor and the antinuclear antibody test are relatively non-specific and cannot be used alone to diagnose a particular form of arthritis. The presence of antibodies against single stranded DNA is virtually specific for systemic lupus erythematosus and affords a diagnostic ability not permitted by the latex fixation or ANA tests. While depression of serum complement is seen in a variety of disorders thought to be due to circulating immune complexes, its presence in a patient with anti-DNA antibodies or known lupus strongly suggests the presence of renal disease. Hypocomplementemia in rheumatoid arthritis on the other hand rarely means renal disease but generally correlates with severe crippling rheumatoid disease with systemic involvement. An approach to the diagnosis and management of patients in which the above tests do not allow a specific diagnosis will be discussed.

**3:00 p.m. Business Meeting — Election of Officers**

**3:15 p.m. Visit to Exhibits**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**Convention Revelry  
Reception Dinner  
Dancing Entertainment  
Saturday, May 31**

**Sunday Afternoon, June 1**

**Family Practice**

(Cosponsored by New Jersey Academy of Family Physicians)

**1:00 p.m. Surgery for the Family Physician — Office and Hospital**

ALFRED A. ALESSI, M.D., Director  
of Surgery, Hackensack Hospital;  
Clinical Associate Professor of  
Surgery, CMDNJ — New Jersey  
Medical School, Newark

Summary not received

**3:00 p.m. Business Meeting — Election of Officers**

**3:15 p.m. Visit to Exhibits**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**Two Credit Hours, American Academy  
of Family Physicians**

**Sunday Afternoon, June 1**

**Neurosurgery and Neurology  
Plastic and Reconstructive  
Surgery**

(Cosponsored by New Jersey Neurosurgical Society,  
Neurological Association of New Jersey; New Jersey  
Society of Plastic and Reconstructive Surgeons)

**1:00 p.m. Business Meeting — Election of Officers**

**1:15 p.m. Reconstruction of Skull Defects**

**Bone Graft Reconstruction of the Skull**

GEORGE L. BECKER, JR., M.D., At-  
tending Neurosurgeon, St. Joseph's  
Hospital, Paterson; Instructor in  
Neurological Surgery, Columbia  
University College of Physicians and  
Surgeons, New York

and

JOHN J. BOWE, M.D., Attending  
Plastic Surgeon, Valley Hospital,  
Ridgewood



Autogenous bone from rib and iliac donor sites has special advantages for the repair of certain skull defects.

This procedure has been done jointly by the plastic and neurosurgical services for 12 years.

The effectiveness in the younger age group and for those in whom repair with exogenous material has failed will be stressed.

Long-term freedom from the complications of infection and re-injury are of particular importance in physically active patients with a long life expectancy.

#### **Reconstruction of Large Bone Contoured Defects with Preformed Synthetic Materials**

ROBERT M. BRIGGS, M.D., Assistant Attending in Plastic and Reconstructive Surgery, St. Barnabas Medical Center Livingston

The accurate reconstruction of traumatic bony contour defects of the periorbital area with prefabricated prosthetic implants is a superior method. Up to this time, many materials have been utilized, all requiring sophisticated laboratory techniques. Due to unusual circumstances, a prefabricated acrylic implant was hand-designed and utilized with success. This technique would appear to have specific advantages over the traditional method and utilization of acrylic by eliminating the usual heat-tissue contact, and by releasing free monomer which causes tissue reaction.

#### **Repair of Larger Parietal Foramina Associated with Fractured Skull**

M. BERNARD WINKLER, M.D., Fair Lawn, Director, Department of Neurosurgery, St. Joseph's Hospital, Paterson

Summary not received

#### **2:00 p.m. Combined Early Approach to Closure of Large Meningo-myelocele**

RICHARD B. BLOOMENSTEIN, M.D., Senior Attending Plastic Surgeon, St. Joseph's Hospital, Paterson

and  
M. BERNARD WINKLER, M.D., Fair Lawn

Early closure of a large congenital spinal myelomeningocele within hours after birth is a procedure that can be lifesaving and which can

preserve neuromuscular function. Experience with infants treated by a combined neurosurgical and plastic surgical team is presented. The modified technique of Mustarde for repair and reconstruction of large defects is explained and illustrated with movie and slides.

#### **2:30 p.m. Reconstruction of the Upper Extremity After Major Nerve Damage**

ROBERT A. CHASE, M.D., Philadelphia, President, National Board of Medical Examiners

Restorative procedures add substantially to the rehabilitation of patients suffering irreversible damage to peripheral nerves in the upper limb. Paralysis of voluntary muscles may be substituted for by selected redistribution of power from residual unparalyzed muscles. Arthrodesis, capsulodesis, and tenodesis are effective in overcoming deformity, liberating unparalyzed muscles for transfer and regaining function synergistic with unparalyzed muscles.

Restoration of sensibility and sudomotor function in critical areas of the hand may be achieved by using island pedicle transfers from areas of retained sensibility.

Each patient requires specifically designed reconstructive procedures to overcome a particular pattern of motor and sensory losses.

Examples of the above strategies to cope with nerve losses will be displayed.

#### **3:30 p.m. Discussion**

#### **4:00 p.m. Visit to Exhibits**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

### **Sunday Afternoon, June 1**

## **Ophthalmology**

(Cosponsored by New Jersey Academy of Ophthalmology and Otolaryngology)

#### **12 noon Luncheon — New Jersey Academy of Ophthalmology**

Reservations: M. S. Klein  
c/o Eye Institute  
15 South 9th Street  
Newark 07107

**1:00 p.m. Symposium on Phaco Sunday Afternoon, June 1**  
**Emulsification**

CHARLES D. KELMAN, M.D., Director, Cataract Emulsification Clinic, Manhattan EET Hospital, New York

A comparison of intracapsular, extracapsular, and phacoemulsification as regarding the advantages of each, the complications of each, and the selection of cases is made by the author. A brief review of the technique of phacoemulsification will be made.

JARED M. EMERY, M.D., Attending Physician, Methodist Hospital; Assistant Professor of Ophthalmology, Baylor University, College of Medicine, Houston, Texas

Summary not received

JORDAN D. BURKE, M.D., Assistant Attending Ophthalmologist, Overlook Hospital, Summit; Assistant Clinical Professor of Ophthalmology, CMDNJ — New Jersey Medical School, Newark

A review of the results of one hundred phacoemulsification procedures for cataract extraction. Emphasis will be on variations in surgical technique, complications and the avoidance and visual results.

ORAM R. KLINE, JR., M.D. Chief Attending Ophthalmologist, Cooper Hospital, Camden; Attending Ophthalmologist, Wills Eye Hospital, Philadelphia

The author reports his experiences with 300 phacoemulsification operations. Visual results and associated complications are discussed.

**2:40 p.m. Panel Discussion**

**3:00 p.m. Business Meeting — Election of Officers**

**3:15 p.m. Visit to Exhibits**

**Hour-for-Hour Credit**  
**AMA Category I and MSNJ-CME**

## **Psychiatry**

(Cosponsored by New Jersey Psychiatric Association)

**1:00 p.m. Psychosomatic Medicine**

SYDNOR B. PENICK, III, M.D., Associate Medical Director, Princeton House, Princeton; Associate Professor of Psychiatry, CMDNJ — Rutgers Medical School, Piscataway

Psychosomatic medicine has traditionally been limited to certain illnesses in which personality factors are believed to play an etiologic role. This sometimes leads to overcategorization. There is a wide spectrum in these illnesses, some patients demonstrating marked personality disturbance and others very little. The inappropriate psychiatric referral in some cases of ulcerative colitis, asthma, peptic ulcer, and so on may be not only without benefit but, indeed, may be hazardous to the patient.

**1:30 p.m. Head Shrinking Fantasies or Who is Shrinking Whom?**

C. PHILIP WILSON, M.D. Assistant Clinical Professor of Psychiatry, Downstate Medical School, Brooklyn; Attending Psychiatrist, St. Luke's Hospital, New York

The term "head shrinker," referring to psychiatrists, is clung to by the public for powerful, unconscious reasons. Psychoanalysis shows that patients fear that the psychiatrist will deprive them of their secret pleasures and fantasies and moreover that the "head shrinkers" will indulge in and enjoy the pleasures stolen from the patients. Thus the "shrink" represents the omnipotent castrating parents of childhood. "Head shrinker" has an apposite unconscious meaning — "head swelling" — and indeed patients hope to develop a huge magical brain from therapy so that they can become the omnipotent "head shrinker." Similar primitive fantasies underlie patient's magical expectations of doctors in general.

**2:00 p.m. Questions and Answers**

**2:30 p.m. Business Meeting — Election of Officers**

**Hour-for-Hour Credit**  
**AMA Category I and MSNJ-CME**

## **Inaugural Reception**

**June 1 — 6:30 p.m.**

**Cherry Hill Inn**

**Monday Morning, June 2**

## **Surgery**

(Cosponsored by New Jersey Chapter, American College of Surgeons; CMDNJ—New Jersey Medical School, Newark; CMDNJ—Rutgers Medical School, Piscataway)

### **8:30 a.m. Registration**

### **Controversies in the Management of Arterial Insufficiency of the Lower Extremities**

#### **9:00 a.m. Introduction**

JAMES W. MacKENZIE, M.D.,  
Professor and Chairman, Department of Surgery, CMDNJ—Rutgers Medical School

#### **9:10 a.m. Noninvasive Tests in the Evaluation of Arterial Disease**

BRUCE J. BRENER, M.D., Clinical  
Assistant Professor of Surgery,  
CMDNJ—New Jersey Medical  
School; Attending Surgeon, Newark  
Beth Israel Medical Center

Non-invasive tests in the vascular laboratory seek to answer three questions: Does the patient have significant vascular disease? (2) How severe is the disease? (3) Where is the occlusive process located? Thus, non-invasive tests are useful for screening, for providing a pre-operative baseline, for intra-operative monitoring, and for evaluating the efficacy of a therapeutic modality, be it medical or surgical. Measurements of intra-arterial femoral pressure, segmental plethysmography and segmental limb pressures are clinically useful and easily obtained and add significantly to the decision-making process in vascular surgery.

#### **9:25 a.m. Management of Aortoiliac Occlusive Disease**

D. EMERICK SZILAGYI, M.D.,  
Clinical Professor of Surgery,  
University of Michigan Medical  
School; Chairman, Department of  
Surgery, Henry Ford Hospital,  
Detroit

The clinical manifestations of aorta-iliac occlusive disease will be summarized with special reference to the anatomical determinants and to diagnostic problems. Aortographic techniques and interpretation will be touched upon briefly. The available methods of surgical technique will be given in artist's sketches and early and late follow-up results will be tabulated.

#### **9:45 a.m. Management of Femoro-popliteal Occlusive Disease**

R. CLEMENT DARLING, M.D., Assistant  
Professor of Surgery, Harvard  
Medical School; Chief of Vascular  
Service, Massachusetts General  
Hospital, Boston

At the present time the only femoro-popliteal reconstructions with demonstrated long-term patency rates are autogenous saphenous vein bypass grafts. If an adequate saphenous vein is present, arterial reconstruction is indicated in those patients who are disabled by intermittent claudication and who are not otherwise restricted by associated medical problems such as angina or emphysema. In those patients who otherwise face amputation, a choice of approximately nine other operative procedures is available and may be indicated despite the lesser patency rates at five years. Among these is profundoplasty which may be adequate to prevent amputation in selected patients with demonstrated stenosis of the origin of the profunda femoris artery.

#### **10:15 a.m. Crossover Femoro-femoral Grafts**

DONALD K. BRIEF, M.D., Clinical  
Assistant Professor of Surgery,  
CMDNJ—New Jersey Medical  
School; Attending Surgeon, Newark  
Beth Israel Medical Center

A series of 93 patients undergoing cross-over femoro-femoral (F-F) grafts is analyzed. This procedure has been performed on both poor risk and good risk patients with unilateral iliac artery obstruction who have disabling claudication, ischemic rest pain, or digital gangrene. Thirty-eight living patients followed between five and eight years showed no evidence of progressive atherosclerosis of the donor iliac artery segment in spite of progressive disease distally in over one-third of the patients. An operative mortality of 4 percent and a cumulative patency rate of between 70 and 80 percent support the continued application of F-F grafts in the management of unilateral iliac artery obstruction.

#### **10:25 a.m. Current Status of Bovine Grafts**

NORMAN ROSENBERG, M.D.,  
Clinical Professor of Surgery,  
CMDNJ—Rutgers Medical School,  
Chairman, Department of Surgery,  
Middlesex General Hospital, New  
Brunswick

This paper reviews the development and use of the modified bovine arterial graft as a segmental vascular substitute. It is prepared by enzymatic removal of antigenic parenchymatous proteins leaving a collagen tube which, after aldehyde tanning, possesses most of the strength and handling qualities of the original artery.



It has functioned successfully in man over the long-term as an arterial graft in iliac, femoro-popliteal and other locations. It has recently also been employed as an interposition H-graft in mesocaval or portacaval shunting procedures. One of its most important applications in recent years has been as subcutaneous arteriovenous fistulae implanted to provide vascular access for hemodialysis.

**10:35 a.m. Coffee Break**

**11:00 a.m. Presentation of Results of Questionnaire**

ERIC J. LAZARO, M.D., Professor of Surgery, and Associate Dean, CMDNJ — New Jersey Medical School, Newark

A questionnaire relating to topics on "Arterial Occlusive Disease of the Lower Extremities" has been circulated to appropriate surgeons throughout the state. The results of the questionnaire will be tabulated and presented at the annual meeting. This questionnaire represents our traditional approach toward continuing education and has enjoyed considerable popularity at past meetings.

**11:10 a.m. Panel Discussion:**

Moderator:

JAMES W. MacKENZIE, M.D.

Panelists:

BRUCE J. BRENER, M.D.

DONALD K. BRIEF, M.D.

R. CLEMENT DARLING, M.D.

VICTOR PARSONNET, M.D.

NORMAN ROSENBERG, M.D.

D. EMERICK SZILAGYI, M.D.

**12 noon Business Meeting — Elections of Officers**

**12:15 p.m. Visit to Exhibits**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**DINNER-DANCE**

Monday, June 2, 1975

Dancing  
Entertainment

**Monday Morning, June 2**

**Dermatology**

(Cosponsored by New Jersey Dermatologic Society and supported by contributions from Johnson and Johnson, Owen Laboratories, Schering Corporation, E. K. Squibb and Sons, Upjohn Company, and Westwood Pharmaceuticals)

**9:00 a.m. Introduction to Clinical Concepts — 1975**

ALFRED JAY SHAPIRO, M.D., Long Branch, Chairman, MSNJ Section on Dermatology; Assistant Clinical Professor in Dermatology, Hahnemann Medical College, Philadelphia

**9:05 a.m. Malignant Melanoma: Concept for Clinician**

DAVID N. SILVERS, M.D., Assistant Professor, Departments of Dermatology and Pathology, NYU Medical Center, New York

An updated concept of malignant melanoma will be offered the clinician to guide him in the diagnosis and treatment of this serious skin tumor. Current thinking on classification, histopathogenesis, immunology, and therapy will be reviewed. Surgical and medical management will be included in the discussion. The final concept will be modified by recent findings of the Melanoma Cooperative Study Group, in which New York University has participated. Handouts describing concept and including bibliography will be offered.

**9:30 Discussion**

**9:45 a.m. Immunopathologic Mechanisms of Selected Skin Diseases**

THOMAS T. PROVOST, M.D., Research Associate Professor of Dermatology, SUNY, Buffalo

The increasing emphasis on the roles of complement, antibody formation, immune complex disposition, T-cells in epidermal and dermal disease will be outlined. The possible role of the foregoing in bullous diseases, dermatomyositis, lupus erythematosus, and allergic eczematous contact dermatitis will be reviewed and updated. A mimeographed handout will be offered, which will include clinical concepts of immunopathology including recent bibliography.

**10:10 a.m. Discussion**

**10:20 a.m. Coffee Break**

**10:35 a.m. Eczema Redefined — 1975 Style**

A. BERNARD ACKERMAN, M.D.  
Associate Professor, Departments of  
Dermatology and Pathology, NYU  
Medical Center, New York

Summary not received

**11:00 a.m. Discussion**

**11:10 a.m. Concept: Acne Pathogenesis and Management**

PETER E. POCHI, M.D., Associate  
Professor of Dermatology, Bastan  
University Medical Center, Bastan

A review of pathogenesis of acne coupled to close scrutiny of our concepts on therapy in acne should offer some enlightening thoughts for current and future management. Why and how sulfur, benzoyl peroxide, Vitamin A Acid, antibiotics, anti-inflammatory agents, and so on, work or do not work in acne will be included. Handouts, including a selected bibliography, will be offered at the end of the presentation to help in updating current concept of management and pathogenetic mechanisms.

**11:40 a.m. Discussion**

**12 noon Business Meeting — Election of Officers**

**12:15 p.m. Visit to Exhibits**

**12:30 p.m. Luncheon: New Jersey Dermatologic Society**

**Therapeutic Pearls—1975**

HENRY H. ROENIGK, M.D., Chief  
Department of Dermatology, Case  
Western Reserve University School  
of Medicine, Cleveland

Reservations: Paul A. Passick, M.D.  
400 Old Hook Road  
Westwood, 07675

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**JEMPAC BREAKFAST**

Monday, June 2, 1975

8 a.m.—Cherry Hill Inn

**Monday Morning, June 2**

**Orthopedic Surgery**

(Casponsored by New Jersey Orthopaedic Society)

**9:00 a.m. Treatment of Acute Cervical Spinal Cord Injury**

JOSEPH RANSOHOFF, M.D., Chair-  
man, Department of Neurosurgery,  
NYU — Bellevue Medical Center,  
New York

The pathological and pharmacological events surrounding experimental spinal cord injury will be demonstrated and the relationship of this to the changes seen in the human spinal cord after injury will be presented. The nature of this "self-destruct" progressive pathological process over time represents the clinical challenge toward which early medical and surgical therapy is directed. An outline of the diagnostic and clinical treatment regime at the New York University Spinal Cord Injury Center will be outlined and preliminary results presented.

**10:00 a.m. Salvage of the Severely Ischemic Limb — Orthopedic Implications**

JOHN ZAORSKI, M.D., Associate  
Attending Thoracic Surgeon, St.  
Barnabas Medical Center,  
Livingston; Clinical Assistant  
Professor (Thoracic) Surgery,  
CMDNJ — New Jersey Medical  
School, Newark

One-hundred patients, threatened with amputation of severely ischemic lower extremities due to advanced arteriosclerotic occlusive disease, had successful femoral-popliteal bypass procedures performed. The results of this study support the efficacy of vascular reconstruction in patients with advanced disease. The successful revascularization process perfuses the limb minimizing the amount of diseased tissue to be removed, and leaves the patient with a simpler adjustment and rehabilitation. Before amputation is considered, angiographic studies with careful evaluation are needed as the preservation of functioning limbs is the primary goal.

**11:00 a.m. Coffee Break**

**11:15 a.m. Management of Acute Ligamentous Injury of the Knee**

JOSEPH P. ZAWADSKY, M.D.,  
Chairman, Division of Orthopedic  
Surgery, CMDNJ — Rutgers  
Medical School, Piscataway

This paper will be a review of the author's experience in the management of the acute ligamentous injuries.

**12 noon Muscle-Bone Graft Treatment for Aseptic Necrosis of Femoral Head**

ANTHONY F. DePALMA, M.D.,  
Professor and Chairman, Division of  
Orthopedic Surgery, CMDNJ — New  
Jersey Medical School, Newark

Summary not received

**12:30 p.m. Prosthetic Replacement of Shoulder and Ankle Joints**

FREDERICK F. BUECHEL, M.D.,  
West Orange  
ANTHONY F. DePALMA, M.D.,  
Newark  
Division of Orthopedic Surgery,  
CMDNJ—New Jersey Medical  
School, Newark

With the recent advent and success of total hip and total knee arthroplasty, other joints have been investigated for restoration of function by means of internal mechanical articulations.

The Orthopedic Research Division of the College of Medicine and Dentistry of New Jersey at Newark has completed preliminary design considerations in collaboration with the New Jersey Institute of Technology on a surface replacement type total ankle joint and a "floating-socket" type total shoulder replacement which will not dislocate. Presently, early clinical evaluations of these joints are in progress. Indications, surgical procedures, and features of design will be discussed along with early results.

**1:00 p.m. Business Meeting — Election of Officers**

**1:15 p.m. Visit to Exhibits**

**1:30 p.m. Luncheon — New Jersey Orthopaedic Society**

Reservations: K. A. Marrissey, M.D.  
175 Cedar Lane  
Teaneck 07666

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**Governor's Conference  
on Delivery of Health Care**

8:30 a.m. Saturday, May 31

Convention Center

**Monday Morning, June 2**

**Chest Diseases  
Family Practice  
Medicine**

(Cosponsored by New Jersey Chapter, American College of Chest Physicians, New Jersey Academy of Family Physicians, and New Jersey Society of Internal Medicine)

**Symposium on Office Management of Chronic Obstructive Pulmonary Diseases**

**9:30 a.m. Scope and Recognition of the Problem**

ROBERT L. MAYOCK, M.D.,  
Professor of Medicine, University of  
Pennsylvania School of Medicine,  
Philadelphia

Chronic obstructive pulmonary disease, a category that includes chronic bronchitis, emphysema, and allergic tracheobronchitis, is one of the most frequently encountered disease entities in clinical practice. In the United States, over 30,000 deaths attributable to these diseases occurred in 1972. Smoking, one of the primary causes of the bronchitis-emphysema problem, is still a major etiological agent in adults and is an increasing habituation problem in teenagers and young adults. Lack of early recognition of this disease category is due, in part, to acceptance of "caught" as a minor deviation from normal instead of a warning of serious respiratory problems to come.

**10:05 a.m. Therapy for Ambulatory COPD Patients**

JOSEPH SOKOLOWSKI, JR., M.D.,  
Associate Professor of Clinical  
Medicine, Jefferson Medical  
College, Philadelphia; Director,  
Respiratory Care Services, Our  
Lady of Lourdes Hospital, Camden

There is no single remedy for the patient with chronic obstructive pulmonary disease. A concise program requires utilization of a variety of medications including expectorants and bronchodilators in conjunction with a structured bronchial hygiene regimen. This includes humidification, nebulization of a bronchodilator, either by a simple hand-held device or pressure ventilator, in conjunction with the physical maneuvers of percussion, vibration, and postural drainage. Ancillary physical measures include diaphragmatic breathing exercises as well as exercise training. The setting of such a therapeutic regimen encompasses the hospital, the rehabilitation unit, and the patient's home. The efficacy of such a program requires not only the expertise of the physi-



cian but also that of the respiratory therapist, the physiotherapist, the nurse-practitioner and home care worker. The objectives of such a therapeutic regimen include self-sufficiency, and increased exercise tolerance. Physiologic improvement represents only the reconditioning of the patient.

**10:40 a.m. Value of Pulmonary Function Testing in the Office**

NORMAN H. EDELMAN, M.D.,  
Chief, Pulmonary Section, Department of Medicine, CMDNJ — Rutgers Medical School, Piscataway

Although office testing of pulmonary function has not been widely adopted, perhaps because of general pessimism about the ability to alter the course of COPD, we believe it deserves re-evaluation by clinicians, especially in view of the recent awareness of the high incidence of environmentally-related lung disorders. These tests are of use for four general purposes: 1) detection of diffuse lung disease; 2) broad characterization of the functional defect; 3) assessment of responses to therapeutic modalities and 4) objective evaluation of the course of the disease. Most of these goals may be achieved in the office by means of a few standard tests which require relatively simple equipment. The forced expiratory volume in one second (FEV<sub>1</sub>) is the best single measurement for detection of diffuse disease since it is sensitive to both obstructive (e.g. COPD) and restrictive (e.g. pneumoconiosis) processes. It is also probably the most useful measurement for following the course of the disease process. We have been impressed by the large numbers of patients who have significant reductions in this measurement despite minimal symptoms. The FEV<sub>1</sub> or the peak expiratory flow rate along with the vital capacity are useful for determining immediate responsiveness to bronchodilators. Functional characterization of disease processes are best left for the more sophisticated tests of the pulmonary function laboratory.

**11:05 a.m. Questions and Answers**

**11:30 a.m. Business Meeting — Election of Officers**

**12:30 p.m. Luncheon — American College of Chest Physicians Annual Selman A. Waksman Lecture**

Reservations: Fred Jacobs, M.D.  
120 Millburn Avenue  
Millburn 07041

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME  
Two Credit Hours, American Academy  
of Family Physicians**

**Monday Afternoon, June 2**

**Gastroenterology and  
Proctology**

(Cosponsored by New Jersey Gastroenterological Society)

**1:00 p.m. Symposium on Surgical Versus Medical Jaundice in 1975: Advances in Differential Diagnosis**

**Progress in Laboratory  
Diagnosis of Jaundice**

DAVID J. GOCKE, M.D., Chief of Immunology and Infectious Diseases and Professor of Medicine and Microbiology, CMDNJ — Rutgers Medical School, Piscataway

Summary not received

**Isotopic Imaging and Excretion Studies: Value and Reliability**

THEODORE J. STAHL, M.D., Director of Nuclear Medicine, Roritan Valley Hospital, Green Brook

Nuclear medicine procedures are useful in the evaluation of the patient with jaundice. A number of approaches are now available. Radioactive Rose Bengal may be used as a direct aide in the differential diagnosis of jaundice. Static and dynamic imaging studies may demonstrate localized lesions versus diffuse involvement of the liver. Imaging studies of the pancreas and of intra-abdominal masses are now possible and may prove helpful in the work-up of the patient with jaundice.

**Endoscopic Retrograde Pancreato-Cholangiography: A New Resource and Its Role in a Community Hospital**

KLAUS J. H. MECKELER, M.D., Clinical Associate Professor, CMDNJ — Rutgers Medical School, Piscataway; Chief of Gastroenterology, Somerset Hospital, Somerville

Endoscopic retrograde pancreato-cholangiography (E.R.P.C.) through a side-viewing duodenoscope has been reported from several academic centers throughout the United States. This report is about 75 attempts at cannulation of the papilla of Vater, performed at Somerset Hospital, New Jersey. Cannulation was achieved in 72 percent of cases (current rate 90 percent). ERPC proved very helpful, particularly in the prompt recognition of extrahepatic icterus. Furthermore, the method aided in the evaluation of suspected pancreatic disease and led

to diagnosis of pancreatic carcinoma in four instances. There were no complications. In conclusion ERPC is a practical and useful diagnostic tool in a community hospital.

#### **Mini-Lap in the Investigation of Jaundice**

MRUGENDRA MEHTA, M.B.,  
F.R.C.S., Resident, Colon-Rectal  
Surgery, St. Barnabas Medical  
Center, Livingston

Over the past few years we have utilized minilaparotomy as a modality of investigations in problem cases of jaundice. The procedure involves exploration of the right upper abdomen through a small incision, integrating liver biopsy, transhepatic cholangiography and omentoportography. It is performed under local anesthesia in a special procedure of the radiology department. We present our experience with sixty patients. We find this procedure to be useful in patients in whom a definitive diagnosis can't be reached with the help of routine measures. The technique is described and the indications, advantages, and disadvantages are discussed.

**2:30 p.m. Business Meeting — Elections of Officers**

**2:45 p.m. Visit to Exhibits**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

**Monday Afternoon, June 2**

## **Physical Medicine and Rehabilitation**

(Cosponsored by New Jersey Society of Physical Medicine and Rehabilitation)

**1:00 p.m. Symposium on Electro-Diagnosis in Neuromuscular Disease**

**Basic Pathophysiology Concerned with Electrophysiological Study of Neuromuscular Diseases**

NEIL SPEILHOLZ, Ph.D., Assistant  
Professor, Research Rehabilitation  
Medicine, NYU Medical Center,  
New York

Summary not received

#### **Essential Electrodiagnostic Features of Myopathic Diseases**

JOSEPH GOODGOLD, M.D.,  
Professor of Rehabilitation  
Medicine and Director of Electrodiagnostic Laboratory, NYU  
Medical Center, New York

Summary not received

#### **Essential Electrodiagnostic Features of Neuropathic Diseases**

OSVALDO MIGLIETTA, M.D.,  
Professor of Physical Medicine and  
Rehabilitation, New York Medical  
College, New York

The physician may obtain significant assistance in the evaluation of peripheral nerve diseases and injuries from well performed nerve conduction studies and electromyographic examination.

Some basic principles underlying the procedures, as well as their usefulness and limitations, will be described.

Electrodiagnostic studies will help in establishing an accurate diagnosis by objectively demonstrating the presence or absence of a particular nerve lesion, by defining the extent and severity of the involvement and by localizing the area and type of pathology.

Some major clinical entities will be discussed.

**2:30 p.m. Business Meeting — Election of Officers**

**2:45 p.m. Visit to Exhibits**

**Hour-for-Hour Credit  
AMA Category I and MSNJ-CME**

## **VISIT THE EXHIBITS**

**Informational  
Scientific  
Technical  
Convention Center**

## 1975 Annual Meeting

### INFORMATIONAL EXHIBITS

Saturday, May 31 — 12 noon to 5 p.m.

Sunday, June 1 — 9 a.m. to 5 p.m.

Monday, June 2 — 9 a.m. to 5 p.m.

#### **Academy of Medicine of New Jersey**

**I-201**

Union

The exhibit will outline the activities of the Academy of Medicine in providing continuing education programs for the physicians of New Jersey during the past year.

#### **Advanced Rehabilitation Aids for Vision, Speech, Hearing and Physical Medicine and Rehabilitation**

**I-211**

The National Institute for Rehabilitation Engineering, Pompton Lakes

The exhibit will present a 100-color slide program illustrating untreatable, incurable, permanently handicapped individuals living, working, and functioning, using special electronic, optical, and electro-mechanical rehabilitation aids. Also, to be shown are actual rehabilitation aids that have been newly developed and are not generally known, including: electronic speech clarifiers; electronic and optical low-vision aids of new types; synthesized peripheral vision for tunnel vision patients; aids for handicapped physicians; aids for paralyzed and cerebral palsied.

#### **Alcoholism Control Program**

**I-207**

New Jersey State Department of Health, Trenton

The exhibit displays various aspects of alcoholism in photographic format, explaining the agony of the disease.

#### **American Diabetes Association, New Jersey Affiliate**

**I-203**

Hockensock

Materials from the American Diabetes Association, New Jersey Affiliate, for professional, patient, and public education will be available.

#### **College of Medicine and Dentistry of New Jersey — New Jersey Medical School**

**I-210**

Newark

The exhibit will inform interested persons about the

College and its programs, admissions, research, curriculum, and so on. The booth will be attended during prime hours by members of the faculty.

#### **Drug Abuse in New Jersey**

**I-212**

MSNJ's Committee on Drug Abuse of the Council on Mental Health

The booth will contain current information on prevalence of drug abuse problems. Brochures will be available. There will be a chance to sign up for positions in the Drug Abuse Treatment Programs throughout the State of New Jersey.

#### **Home Health Agency Assembly of New Jersey**

**I-205**

Westfield

The exhibit will consist of two panels displaying pictures depicting services rendered by a home health agency. Preventive services will be emphasized. Nurses will take blood pressure, provide samples of home prepared low salt, low cholesterol foods, offer nutritional and other preventive health information, and distribute printed material.

#### **JEMPAC**

**I-204**

New Jersey Medical Political Action Committee, Hopewell

Here offered will be information on political action for physicians.

#### **New Jersey Foundation for Health Care Evaluation**

**I-213**

Trenton

Purpose of the exhibit is to define the role and present the accomplishments of the New Jersey Foundation for Health Care Evaluation and statewide PSRO Support Center.

#### **New Jersey Right to Life Committee**

**I-208**

Absecon

Pro-life informative literature will be on display (books and pamphlets) including educational materials on the pro-life subjects.



**Smoking and Environmental Health**

**I-209**

MSNJ's Special Committee on Environmental Health, Trenton

An educational exhibit dealing with smoking and its deleterious effects on the immediate environment of the smoker and those near him will be displayed.

**Supplemental Security Income**

**I-206**

Division of Disability Determination, New Jersey State Department of Labor and Industry, Newark

Supplemental Security Income, a new Federal

assistance program, will be explained and literature distributed.

**Society for the Relief of Widows and Orphans of Medical Men of New Jersey**

**I-202**

Millville

"W and O" is a voluntary, non-profit organization, founded in 1882 and continuously operated by the physicians of New Jersey to provide for the welfare of widows and children of deceased member physicians.

*1974 Annual Meeting*

**SCIENTIFIC EXHIBITS**

Saturday, May 31 — 12 noon to 5 p.m.

Sunday, June 1 — 9 a.m. to 5 p.m.

Monday, June 2 — 9 a.m. to 3 p.m.

**Roentgen of the Day  
— Pediatrics**

**S-101**

Jerome H. Rusoff, M.D. and James R. Morquis, M.D.,  
CMDNJ-New Jersey Medical School, Newark

**Roentgen of the Day — Adult**

Jerome H. Rusoff, M.D. and Jerome S. Morrow, M.D.  
CMDNJ-New Jersey Medical School, Newark

Roentgen problem of the day as shown in one or two x-ray films with a short clinical history will be presented. The answer, with explanation, will be shown the next day and in the late hours of the third day. With the answer, additional x-rays and/or photographs of the roentgen will be included. Recognition awards will be made to each winner.

**Synovial analysis: The Key to  
Evaluation of Arthritis**

**S-102**

Sheldon D. Solomon, M.D., Stanley Burrows, M.D. and  
Betty Moor, The Cooper Hospital, Camden

Purpose of this exhibit is to demonstrate to physicians the importance of synovial fluid examination in the evaluation of patients with arthritis. The exhibit demonstrates the various simple and sophisticated studies which are performed on joint fluid, the categories of joint fluids based on these studies, and the differential diagnosis of rheumatic diseases based on these categories.

**Diagnostic Tests in Endocrinopathies  
and Their Therapeutic  
Management**

**S-103**

Herbert S. Kupperman, M.D., Iven S. Young, M.D., Poul  
Beck, M.D. and Andre Heltoi, M.D., New York University  
School of Medicine, New York

The endocrine patient presents us with many diagnostic problems. An orderly and systematic scheme has been devised for determining the precise site and defect in the endocrine system bringing about the disturbances in endocrine function. A pictorial representation of patients with each endocrinopathy is included.

**A Cost-Effective Physiologic  
Profile System**

**S-104**

Joseph D. Cohn, M.D., Peter E. Engler, Ph.D., Micki A.  
Rosenbloom, Louis R.M. Del Guercio, M.D., Saint Bor-  
nobos Medical Center, Livingston

The Automated Physiologic Profile, performed by paramedical personnel, consists of data analyzed from recordings of indicator dilution curves, vascular pressures, and blood sample analyses. Data are analyzed by a programmable calculator and are recorded in a suitable format to present to the attending physician shortly after the procedure is performed. Unit cost analysis demonstrates that each study may be performed for less than \$30. The Physiologic Profile Analysis has been used routinely

in the assessment of critically ill patients and high-risk patients undergoing major surgery.

### **Ease and Efficacy of Burn Management with Povidone-Iodine Ointment S-105**

Stephen R. LaVerne, M.D., Maria Berschadsky, M.D. and Paul LaVerne, CMDNJ — New Jersey Medical School, Newark

One hundred twenty-four patients (75 males, 49 females) ranging in age from 12 weeks to 101 years, were treated with povidone-iodine compounded as a topical ointment for a wide range of burn conditions caused mainly by fire and hot water — 23 were out-patients, the remainder were hospitalized from 1 to 212 days with the average duration 32 days. Eighty percent received twice or thrice daily applications of the povidone-iodine ointment. Facial and adult trunk burns were "battered," others treated with occlusive dressings. Antibiotics were administered to 60 patients as adjunct therapy; 19 received hydrotherapy. Causes of death for the eight mortalities given, with analysis based on National Burn Information Exchange data, are presented. Microbiologic data are provided and surgical procedures indicated.

### **The Use of Flow Directed Catheters in the Management of the Critically Ill Patient S-106**

William Eric Scatt, M.D. and Carolyn Bekes, M.D., The Cooper Hospital, Camden

The exhibit deals with various aspects of the bedside use of pulmonary artery flow directed catheters in the management of seriously ill patients. The different methods of introduction of the catheter into the vascular system are enumerated and the sub-clavian approach used by the exhibitors is dealt with in more detail. The use of the transmitted wave form to determine the catheters' position is demonstrated with illustrative tracings. Also discussed, from the aspect of patient management, is the use of the data obtained from the catheter (ie: wedge pressure, cardiac output, A-V O<sub>2</sub> difference).

The estimation of cardiac output by thermal dilution using a catheter with temperature probe and computer is demonstrated and observers may make the determination themselves on an artificial closed circuit with a variable flow pump.

The exhibit consists of photographs, x-rays, and artwork with legends displayed on the back wall and dividers of the booth. In the foreground, there will be placed on a table a simulation of a circulation, with a variable flow pump together with a cardiac output computer and a flow directed catheter with temperature sensors. In this way interested observers

may make simulated cardiac output estimations for themselves and inspect the thermal dilution curves obtained.

### **Stroke Prevention Can Work S-107**

Stanley C. Leinberg, Jr., M.D., and Frank A. Elliott, M.D., The Pennsylvania Hospital, Philadelphia

This exhibit presents a simple but comprehensive program for the prevention of recurrent stroke by correction or control of the various known or suspected high-risk factors in stroke. A group of 102 patients so treated following first cerebral infarction showed a five-year mortality rate of 18 percent. This compared favorably to the generally anticipated five-year mortality rate of 50 percent, and to a 61 percent mortality for the same period in a control series.

### **Comprehensive Management of Epilepsy S-108**

Samuel Livingston, M.D., Lydia L. Pauli, M.D., Irving M. Puce, B.S. and Herbert L. Livingston, D.D.S., The Samuel Livingston Epilepsy Diagnostic and Treatment Center, Baltimore

The data presented in this exhibit are based on direct clinical observations, EEG examinations, and intimate follow-up studies of approximately 30,000 epileptic patients over the past four decades. The following aspects of epilepsy are displayed by means of photographs and/or printed material on colored panels: Classification of epileptic seizures; General principles of drug therapy; Specific drug therapy for epilepsy; Dietary treatment of epilepsy; Surgical treatment of epilepsy; Use of the EEG in epilepsy; Prolonged seizure activity; Cutaneous reactions of antiepileptic drugs; Diphenylhydantoin gingival hyperplasia; Anticonvulsant drug blood levels; Treatment should be initiated with one drug; Epilepsy and sports; Use of amphetamines in epilepsy; Do anticonvulsant drugs cause rickets? Are anticonvulsant drugs teratogenic?

### **The Importance of a New Method for Reliable Visual-Evoked Response (VER) for an Ophthalmologic and Neurologic Diagnosis S-109**

G. M. Stevens, A. Cinatti, M.D., M. White, M.D., G. Kiebel, M.D. and J. Leaman, CMDNJ — New Jersey Medical School, United Hospitals of Newark and Veterans Administration Hospital, Newark

There will be presented in pictures (electronic instrumentation and the way to work) a new method for more reliable ERG and Visual Evoked Responses, based on selected averaging with modern electronic

recording equipment. In addition, there will be presented diagnostic recordings in cases of: (1) cataracts in confused patients, (2) hereditary retinal diseases, (3) hysterical blindness, (7) malingering, (8) amblyopia. All pictures are self-explanatory. The importance for the practitioner ophthalmologist and neurologist will be stressed.

### **The Treatment of Superficial Mycoses with Topical Miconazole** S-110

Stephen H. Mondy, M.D., Miami, Florida

Topical application of 2 percent miconazole nitrate cream is effective treatment in dermatophytoses, candidiasis, and tinea versicolor. The data presented from double-blind clinical studies show rapid clinical, mycological, and symptomatic clearing. Persistence of therapeutic effect appears to continue for a considerable time after drug application is halted.

### **The Expanding Therapeutic Spectrum of Vitamin A Acid (Tretinoin)** S-111

Richard S. Berger, M.D., CMDNJ-Rutgers Medical School, Piscataway; Albert M. Kligman, M.D. and Otto H. Mills, Jr., M.S., University of Pennsylvania School of Medicine, Philadelphia

Introduced originally for acne vulgaris, tretinoin has proved to be useful in a great variety of cutaneous disorders. These include: ichthyoses, follicular disorders, benign epithelial tumors, disorders of keratinization, and perforating dermatoses. Tretinoin may be used to potentiate and improve the efficacy of other topicals in certain resistant dermatoses.

### **Childhood Cancer: Where Are We Now?** S-112

George M. Gill, M.D. and Thomas R. Walters, M.D., Children's Hospital and CMDNJ — New Jersey Medical School, Newark

This exhibit will show representative cases and will summarize response data from recent studies. Special emphasis will be placed on the dramatic improvement in prognosis that is occurring as a result of aggressive therapy by multidisciplinary teams of surgeons, radiotherapists, and pediatric oncologists.

### **Hemodialysis Home Training** S-113

Milton R. Bronstein, M.D., Perth Amboy General Hospital, Perth Amboy

Patient and trainee selection for home dialysis is detailed. A programed teaching outline is presented including the role played by members of the dialysis committee. The roles of the physician, social work department, dietary, nursing, and credit departments are presented.

### **Prehospital Coronary Care Program** S-114

Michael D. Yoblonski, M.D., Hackensack Hospital; Hockensock Volunteer Ambulance Corps, City of Hockensock; and Bergen County Heart Association

Purpose of this exhibit is to describe the community's effort to provide prehospital coronary care as a joint effort involving a community hospital, the Heart Association, a volunteer ambulance corps, and a city through its police and fire departments. A back-up heart rescue team consisting of a physician, nurse, and EMT with appropriate medications and equipment are dispatched simultaneously in 18 percent of emergency ambulance calls. There will be a continuous slide show depicting the program. Some of the emergency equipment will be displayed. Statistics and literature of the first year of operation will be available. Personnel will be on hand to discuss the prehospital coronary care services.

### **The Molecular Basis of Brush Border Membrane Disease** S-115

Robert K. Crone, Ph.D., Daniel Menard, Ph.D., and Honno Preiser, Ph.D., CMDNJ — Rutgers Medical School, Piscataway

The exhibit shows enzyme data and brush border membrane protein separations of an individual with sucrose-isomaltose intolerance compared to normal. The intolerant individual has no sucrase-isomaltase activity in membranes isolated from a biopsy and the proteins normally associated with these enzymes are absent.

### **The Diagnostic Values of Wide-Field Electron Microscopy in Disease** S-116

Ashton B. Morrison, M.D. and Groce C. H. Yang, M.S., CMDNJ — Rutgers Medical School, Piscataway

All of the information in a section can be documented at ultrastructural level within two hours of sectioning by a technique called "wide-field" electron microscopy in which a continuous electron micrograph of specimens from very low to very high magnifications can be obtained. Diagnosis becomes more dependable, as the earliest focal lesions stand a better chance of being detected. The exhibit shows several wide-field electron micrographs.

### **Undergraduate Behavioral Science Education: A New Approach** S-117

Edwin Ellis, M.D., Alan Barnes, M.D. and Bonnie Morkhom, Ph.D., CMDNJ — Rutgers Medical School, Piscataway

The exhibit has three components of a new approach to teaching Behavioral Science: didactic resources, experiential dimensions, and evaluation approaches.



The purpose of the exhibit is to provide a forum for individuals interested in undergraduate medical education to explore alternative approaches to the teaching of behavioral science. The intended outcome is to stimulate an exchange of ideas and resources.

### **Family Center: Rehabilitation of Pregnant Drug-Dependent Women and Their Infants**

**S-118**

Laretta P. Finnegan, M.D., James F. Cannaughtan, Jr., M.D., Jacob Schut, M.D., and Jo Stern, M.S.S., Philadelphia General Hospital, Philadelphia

The purpose of this exhibit is to describe a program called Family Center, a voluntary project under the auspices of the West Philadelphia Mental Health Consortium and the Philadelphia General Hospital which is designed to offer extensive medical care for the pregnant mother and her infant, and individual and family counseling services for social and emotional needs of concern. The exhibit shows how the mother is cared for in a special prenatal clinic at the Philadelphia General Hospital, where a physician trained in obstetrics and addictive care is provided. The patient is offered psychosocial counseling by social workers and psychiatrists as well as methadone maintenance or drug-free services. The infant is cared for in the intensive care nursery at the Philadelphia General Hospital. Public health nurses and community workers provide medical, nutritional, and educational support as well as outreach to the community in order to encourage the medical, social, and addictive care that these patients need. The exhibit describes the problems of the pregnant addict and her newborn and how this program has dealt with them. Statistical results of program participants as well as control groups are described for 411 pregnant women who have delivered at the Philadelphia General Hospital over the past five years. Benefits to the mothers and infants on such a program are listed in addition to the disposition and long-term follow-up of the newborn infant. In conclusion, this program has found that comprehensive care for pregnant drug-dependent women, which entails medical, psychosocial, and addictive care, can decrease morbidity and mortality in the mother as well as her newborn infant. It is recommended that such programs be available for this population so that we may prevent large numbers of low birth-weight infants born to mothers who do not receive care and infants who may eventually have the neurological sequelae of their premature birth.

### **Student Evaluation as a Self-teaching Experience — A Demonstration**

**S-119**

Elizabeth V. Lautsch, M.D., Ph.D., CMDNJ — Rutgers Medical School, Piscataway

The object of the demonstration is to illustrate the feasibility of combining an evaluation of student performance in pathology with a self-teaching learning experience. This objective is achieved by presenting the student with comparisons of disease processes using transparencies and providing a series of questions which force the examinee to observe, compare and contrast, differentiate, interpret, and recall any number of factors related to the disease process demonstrated. These factors include cause, pathogenesis, stage of the process at the time of the photograph, natural history, prognosis, possible clinical expressions, and so on. The questions are unpredictable in that they may challenge the examinee's knowledge of anatomy, physiology, and biochemistry, as well as interrelationships of body organs and effects of disease on tissues or structures apparently remote from the affected area. A time limit is set for each paired set of transparencies.

Responses give a clear indication of the student's ability to recognize disease processes and to integrate these with their significance to the patient. Meanwhile he has had the opportunity to see numerous expressions of disease: to compare, to integrate, to evaluate, and to judge for himself — in short, it has become a self-teaching experience.

### **Spontaneous Pneumothorax — A Manifestation of Pulmonary Disease**

**S-120**

William V. Harrer, M.D., Joseph W. Sokolowski, Jr., M.D., Barry R. Aikey, M.D. and Francisca Enriquez, M.D., Our Lady of Lourdes Hospital, Camden

Spontaneous pneumothorax may represent the initial manifestation of underlying pulmonary parenchymal disease. Examples to be presented include eosinophilic granuloma, interstitial fibrosis associated with ankylosing spondylitis, tuberculosis, and catamenial pneumothorax. Talc Poudrage, the technique and its indications, will be featured.

### **Rechargeable Cardiac Pacemaker**

**S-121**

Kenneth B. Lewis, M.D. and Robert E. Fischell, M.S., Johns Hopkins Applied Physics Laboratory and School of Medicine, Silver Spring and Baltimore

Design history, operational principles, and clinical results are presented. The pacemaker has been implanted and successfully operated continuously in over 1200 patients with only one failure (which was noninjurious) during the past two years. In addition to high reliability and greatly increased longevity due to the employment of no life-limited components, the pacemaker has demonstrated advances in size, weight, simplicity of implantation, and resistance to electrical interference.

## **Medical Treatment of Angina**

### **Pectoris**

**S-122**

Moxwell L. Gelfond, M.D., Howard Kloth, M.D., and Louis Goodkin, M.D., New York Infirmary, New York University Medical Center, New York

The purpose of this exhibit is to present our experiences with a beta blocking agent, propranolol, in the medical management of angina pectoris. We have treated 75 patients with severe angina pectoris for a period of up to five (5) years with propranolol. We have noted relief of angina in greater than 80 percent of our group as evidenced by (1) decrease in the number of attacks, (2) reduced need for nitroglycerin, and (3) increased exercise tolerance.

### **The Nuclear Powered Pacemaker**

**S-123**

Victor Parsonnet, M.D., I. R. Zucker, M.D., and L. Gilbert, M.D., New York Beth Israel Medical Center, New York

The purpose of the exhibit is to describe the nuclear power cell, to show a typical application and to report a two-year clinical experience with the first American nuclear powered pacemaker implantation.

### **Hemodynamics of Arteriovenous Fistulae**

**S-124**

Jeffrey E. Lovigne, M.D. and Kenneth G. Swon, M.D., CMDNJ — New Jersey Medical School, Newark

The increasing use of arteriovenous fistulae for chronic hemodialysis has prompted an investigation concerning the hemodynamic effects of such fistulae in order to determine whether there are adverse effects such as distal venous hypertension, distal arterial insufficiency or central hemodynamic effects, such as high output cardiac failure. These questions were investigated in anesthetized dogs utilizing electromagnetic flowmeters for determination of flows through the four limbs of an arteriovenous fistula, as well as the fistula itself, located in the femoral region. In addition, arterial pressure-recording catheters were located in the fistula and its four limbs. From these data, vascular resistance was calculated. Construction of a "loop-type" fistula between femoral artery and vein, derived from autogenous carotid artery, resulted in measurements indicating that flow through an arteriovenous fistula approximated flow through the proximal artery amounting to six to seven times control femoral arterial blood flow. Distal femoral arterial flow was not compromised by the fistula, and retrograde flow, in the direction of the fistula, was documented only when the proximal femoral artery was occluded. Distal venous hypertension was observed, but was much less than that associated with classical side-to-side arteriovenous fistulae. Pressure within the loop fistula approximated arterial pressure on

the arterial side and was rapidly dissipated to approximate venous pressure on the venous side of the fistula. These data indicate that the arteriovenous fistulae currently utilized for chronic hemodialysis probably will not render the distal limb ischemic, nor will they result in sufficient venous hypertension to produce the side effects of venous insufficiency distal to the fistula.

### **The Carbon Dioxide Laser as a Surgical Instrument**

**S-125**

Stanley Steller, M.D., Saint Barnabas Medical Center, Livingston

The purpose of this exhibit is to illustrate the surgical applications of the CO<sub>2</sub> laser. The physical principles underlying the biological action of the laser beam are listed and, in turn, the surgical properties so derived are given in concise form. Illustrations in color depict the uses of this new and valuable surgical tool in both experimental animals and humans as well as animal patients with naturally occurring disease processes. The evidence clearly demonstrates that pathological tissue can readily be vaporized and removed, hemostatically, from a variety of organs. Subsequent healing is nearly always excellent.

### **The Use of Peritoneal Lavage as a Diagnostic Tool**

**S-126**

Christine E. Hoycock, M.D., George Mochiedo, M.D., and Jeffrey Lovigne, M.D., CMDNJ — New Jersey Medical School, Montland Hospital Unit, Newark

Purpose of this exhibit is to show the technique of doing peritoneal lavage for diagnosis. Shown will be both colored slides and enlarged photographs illustrating the technique and a graph indicating that statistical results of our studies at Martland Hospital rate favorably with similar statistics throughout the country.

### **Cervicothoracic Trauma**

**S-127**

William E. Neville, M.D., Paul J. P. Bolonowski, M.D., and Benjamin F. Rush, Jr., M.D., CMDNJ — New Jersey Medical School, Newark

The exhibit depicts (with color transparencies) a variety of cervical and thoracic trauma that has been treated at Martland Hospital in Newark. This includes heart, great vessels, and pulmonary injuries. The overall results over the past four years are presented.

### **Neurostimulation of the Sympathetic Ganglia**

**S-128**

Monico I. Aleniewski, M.D., Benigno Bulos, M.D., and William C. Lowe, M.D., Veterans Administration Hospital, East Orange

This exhibit compares the efficacy of neurostimulation versus nerve blocks using local anesthetic agents of stellate, celiac, and lumbar ganglia. The neuroanatomy and neurophysiology of pain transmission, the techniques used in both procedures and results of our study will be shown. With neurostimulation of the sympathetic ganglia, complete to almost complete relief of pain was obtained in all patients. Neurostimulation seems to be superior to blocks because it lacks such complications as fall of blood pressure, subarachnoid injection, or toxic reaction to the anesthetic agent.

### **Fine Needle Aspiration Biopsy of Breast S-129**

Martin R. Rush, M.D., Charles Curtin, M.D., and Judith D. Swank, C.T., Department of Pathology, CMDNJ — Rutgers Medical School, Piscataway

Fine needle aspiration biopsy, a rapid, relatively painless procedure, requiring no anesthesia, will be presented. Microscopic diagnosis is available in 2 to 5 minutes. The display will contain transparencies of gross and microscopic findings on each disease category, as well as demonstration of equipment.

### **Early Detection of Breast Cancer S-130**

Fileman A. Lapez, M.D., Benjamin Rush, M.D., Ricarda Baldanada, M.D., and Fred J. Verderese, R.T., CMDNJ — New Jersey Medical School, Newark

Results of mass screening done at the Breast Screening Center in Newark, involving over 6,000 examinations from November 1973 to January 1975 will be presented. Examinations involved tandem approach of interview, physical examination, film mammography, and thermography. A short discussion on technique and proved cases will be shown.

### **The Pavlik Harness: Treatment of Hip Dysplasia in a Community Practice S-131**

Paul J. Hirsch, M.D. and Stuart A. Hirsch, M.D., CMDNJ — Rutgers Medical School, Piscataway

The Pavlik Harness is little known among orthopedists. It is an effective and convenient method for treating hip dysplasia and is highly acceptable to parents. It emphasizes flexion (rather than abduction), and allows vigorous hip motion. This exhibit will display the harness and demonstrate its use. X-rays of typical cases and a statistical summary of more than 30 cases will be included.

### **Treatment of Avascular Necrosis of the Femoral Head by Muscle Pedicle Graft S-132**

Richard A. Rentfro, M.D. and John McKean, M.D., Martland Hospital, Newark

Purpose of this exhibit is to give a preliminary report on a method of treatment for avascular necrosis of the femoral head. This exhibit shows the indications, the procedures, and follow-up. Early results are inconclusive until more follow-up, but appear promising.

### **Cast-Bracing Treatment of Femoral Fractures S-133**

Anthony F. De Palma, M.D., Stephen A. Smith, M.D., and Paul Caragine, M.D., CMDNJ — New Jersey Medical School and Crippled Children Hospital, Newark

This exhibit provides an explanation of the theory and methods of cast-bracing treatment of femoral shaft fractures. The chances of nonunion, malunion, or other disabilities are greatly reduced with this form of treatment as compared with standard forms of treatment.

### **Scoliosis-Early Recognition and Treatment S-134**

Charles I. Nadel, M.D., Howard A. Lawell, M.D., Robert J. Weierman, M.D., and Anthony Van Grauw, Jr., M.D., Hospital Center at Orange-New Jersey Orthopaedic Hospital, Orange

This exhibit will demonstrate the early recognition of scoliosis, its etiology and treatments, to acquaint physicians with the early manifestations of the disease. The various forms of treatment will be indicated, emphasizing that early recognition makes the need for extensive surgery less likely.

### **Long Term Results of Surgical Treatment of Scoliosis S-135**

Anthony Van Grauw, Jr., M.D., Robert J. Weierman, M.D., Charles I. Nadel, M.D., and Howard A. Lawell, M.D., Hospital Center at Orange-New Jersey Orthopaedic Hospital, Orange

An eight- to fourteen-year study of patients with idiopathic scoliosis who have been treated by Harrington Rod instrumentation, spine fusion, and bone graft will be presented. This study will correlate a number of parameters in the surgically treated patient and compare some of these parameters with non-treated scoliotics and the average population.

### **Idiopathic Scoliosis S-136**

Henry R. Cowell, M.D. and Nina L. Steg, M.D., Alfred I. duPont Institute, Wilmington

Idiopathic scoliosis is a significant medical problem in the adolescent population. As more pediatricians deal with adolescent patients, their skills in making this diagnosis must be enhanced.

Current American Academy of Pediatric standards call for only one physical examination during the



high-risk age period for this disease, i.e., one examination between 13 and 15 years of age.

This exhibit will depict the natural history of idiopathic scoliosis; appropriate methods for screening for idiopathic scoliosis on routine physical examination; genetic implications for other family members; therapy; and how therapy and outcome depend on the stage at which the diagnosis is made.

### **Scoliometer for Measuring the Scoliotic Curvature S-137**

Enrique T. Pardon, M.D., Jersey Shore Medical Center, Neptune

Exhibit consists of photographs showing this new device for the measurement of the scoliosis deformity and also some photographs of other methods used for this same purpose.

### **Total Ankle and Total Shoulder Joint Replacement — Recent Advances S-138**

Frederick F. Buechel, M.D., Anthony F. DePalma, M.D., and Michael J. Pappas, Ph.D., CMDNJ — Newark College of Engineering, Newark

Recent research and surgical advances in orthopedic implant surgery have been made at the College of Medicine and Dentistry of New Jersey, with the cooperation of Newark College of Engineering. Construction and implantation of replacement ankle and shoulder joints together with early clinical trial results will be presented.

### **The Surgical Management of Craniofacial Deformities S-139**

Michael L. Lewin, M.D., Ravela V. Argamaso, M.D., and Milton Berkman, D.D.S., Mantefiore Hospital and Medical Center, New York

The exhibit deals with congenital deformities of the craniofacial skeleton: Crauzan and Apert syndromes, hypertelorism; Tracher-Collins; hemifacial microsomia; and skeletal hypoplasia secondary to cleft palate deformity. The surgical management — osteotomies and bone grafts — is presented by photographs, radiographs, drawings, and models. Evaluation and treatment require a comprehensive team approach, including plastic surgeon, neurosurgeon, orthodontist, and anesthesiologist.

### **Bladder Cancer Diagnosis on Intravenous Pyelography S-140**

Rager A. Berg, M.D. and Prehm Gukhaal, M.D., Morristown Memorial Hospital, Morristown

We will show how commonly bladder cancer is seen

on an IVP, how it may be recognized, why it is often unrecognized, and what can be done to improve diagnostic accuracy. Examples of the subtle changes on the cystogram film of the IVP that indicate bladder cancer are shown.

### **Filling Defects of the Urinary Bladder Stimulating Neoplasms S-141**

Orlando C. Cordera, M.D., CMDNJ — New Jersey Medical School, Newark

Benign lesions of the urinary bladder, and benign lesions arising in the pelvic cavity, ranging from the more common to the rare entities may cause filling defects in the urinary bladder that can mimic carcinoma. Many of these lesions present with distinguishing radiographic features, so that differentiation of these benign lesions, from carcinomas affecting the urinary bladder, can be made. The roentgen features of these entities are described, and an attempt to classify them into extrinsic and intrinsic categories is made. In a few of these entities, however, the radiographic appearance is not enough to exclude carcinoma. This is particularly true for lesions that affect the bladder wall. The diagnosis for some of these lesions depends on clinical grounds and the awareness that these entities exist.

### **An Easy Way To Teach TUR's S-142**

Jose J. Iglesias, M.D., Lanbarda Castro, M.D., and Joseph J. Seebode, M.D., CMDNJ — New Jersey Medical School, Newark

The carefully programmed step-by-step instruction of the student of transurethral surgery and the development of two new instruments, the continuous suction resectoscope and the rigid teaching element, have made the teaching of the TUR much more simple and more efficient. This exhibit emphasizes these points and shows the clear photos obtained with the new instruments.

### **Selective Gonadal Angiography for Testicular Localization and Tumor Evaluation S-143**

Mansour Khademi, M.D., Philip J. Vitale, M.D., and Joseph J. Seebode, M.D., CMDNJ — New Jersey Medical School, Newark

Selective gonadal arteriography and venography have been performed on eight patients with undescended non-palpable testes and one patient with a testis tumor. The testis was localized by the appearance of the epididymal arterial plexus or the pampiniform plexus of veins and confirmed at exploration. The diagnosis of testis tumor was confirmed and nodal spread documented.

**A Panoply of Techniques and Tools  
in Cardiac Surgery Today S-144**

D. Marse, M.D., J. Fernandez, M.D., S. S. Yang, M.D., V. Mara, M.D., R. Steiner, M.D., Jael Shapiro, M.D., P. Ger-  
man, M.D., A. Gaach, M.D., and G. M. Lemale, M.D.  
Debarah Heart and Lung Center, Brawns Mills

Exomples of echocardiograms, pothognomonic of  
various intro-cordioc lesions; the use of sconning  
techniques in conjunction with coronary  
orteriology to demonstrote myocordial perfusion;  
the identification of x-rays of vorious models of  
volves ond pocemokers; ond the statisticol results of  
cordioc surgery will be demonstrated.

**Diagnosis and Management of Acute  
and Chronic Pericarditis S-145**

Paul J. P. Bolanawski, M.D., William E. Neville, M.D.,  
Melvin Freundlich, M.D., and Patricia Quinanes, M.D.,  
CMDNJ — New Jersey Medical Schaal, Newark

The exhibit demonstrates new techniques in the  
diagnosis of pericarditis. The odvontoges of anterior  
pericordectomy in the monagement of potients with  
various types of pericarditis will be explained.

**Resuscitation of the Severely  
Traumatized Patient S-146**

Eric J. Lazara, M.D., Christine Haycack, M.D., Paul  
Balanawski, M.D., and Benjamin F. Rush, Jr., M.D.,  
CMDNJ — New Jersey Medical School, Newark

This exhibit is part of o sound-slide program  
prepared for the American College of Surgeons'  
Committee on Troumo ond is on instructional  
program to be used by various institutions for  
teoching the management of the severely  
troumotized patient. It is appropriate for otending  
surgeons engoged in the monagement of troumo,  
for emergency room physicions, for house officers,  
for medical students, ond for oncillory medical per-  
sonnel.

*1975 Annual Meeting*

**TECHNICAL EXHIBITS**

Saturday, May 31  
Sunday, June 1  
Monday, June 2

12 noon to 5 p.m.  
9 a.m. to 5 p.m.  
9 a.m. to 3 p.m.

**MSNJ is pleased to recognize, through their generous contributions, the following  
patrons of the educational programs through the scientific sessions:**

**Eli Lilly and Company  
Mead Johnson Laboratories  
Parke Davis and Company**

**Alpha Medical Supply  
Company, Inc.**

**#49**

Here displayed will be medical equipment ond office  
furnishings.

**American Association of  
Medical Assistants, State of  
New Jersey Message Center**

Information ond brochures describing the oims ond  
purposes of AAMA, its educationol opportunities,  
ond its certification program will be ovailable for  
distribution. Messoges for doctors in otendance ot  
the convention will be relayed through this booth.

**A. H. Robins Company  
Stuart Pharmaceuticals  
The Upjohn Company**

**Ames Company, Division Miles  
Laboratories, Inc.**

**#64**

Ames Compony will hove information on the  
Multistix Reagent Strips, Microstix Reagent Strips,  
Ames Thyroid System for Thyroid Diagnosis, ond  
Ames Blood Anolyzer, Eyetone Reflectonce  
Colorimiter.

**Armour Pharmaceutical Company #56**

Armour Phormaceutical Compony will feature  
information on Calcimor,<sup>®</sup> Thyrolor<sup>®</sup> ond Nicobid.<sup>®</sup>

**Ayerst Laboratories**

#45

**Burroughs Wellcome Company**

#20

Ayerst Laboratories is pleased to offer information on Premarin<sup>®</sup>, Atramid-S<sup>®</sup>, and Inderal<sup>®</sup>.

Representatives will be pleased to give information on Septra<sup>®</sup>, Zylaprim<sup>®</sup>, and Actifed<sup>®</sup>.

**Sanford C. Bernstein and Company, Inc.**

#33

Sanford C. Bernstein and Co., Inc., a member of the New York Stock Exchange and a registered investment advisor, specializes in the management of portfolios for individual, pension, and profit-sharing plans and Keogh plans. All accounts are individually managed by an owner of the firm. Each decision for a specific portfolio is based on the investment objective and goal of that portfolio.

**Biometric Systems, Inc.**

#29

Vitalograph Spirometer is a low cost, portable, single breath wedge bellows instrument. It is used for office physicals, hospital evaluations, screening, and the industrial clinic. It is a direct reading instrument from the chart recorder. The unit measures FEV (0-6 sec), FVC, % FEV/FVC, FMF (25-75%), FEF (.2-1.2) and MVV.

**E. & W. Blanksteen Agency, Inc.**

#15 &amp; #16

E. & W. Blanksteen Agency, Inc. are official brokers for The Medical Society of New Jersey for Accident and Health, Major Expense, High Limit Accident, Term Life Insurance, Hospital-Money, The Overhead Expense Plan, EPIC Auto Insurance, HR-10 Keogh Retirement Plan, and Corporate Master Retirement Plan. All of these programs provide exceptional value for the members because of the group purchasing power of the State Society.

**Blue Shield of New Jersey (MSP)**

#12

Blue Shield of New Jersey welcomes this opportunity to visit with physicians. We will be pleased to discuss any general questions concerning Blue Shield or particular inquiries concerning the Series 750 or the Usual, Customary or Reasonable (UCR) Fee Programs.

Blue Shield representatives also would welcome the opportunity to discuss systems recently installed to improve claims service and how we, together with the physicians of New Jersey, can provide improved service.

**Joseph A. Britton Agency**

#14

This agency provides officially endorsed professional liability insurance.

**Ciba Pharmaceutical Company**

#58

Ciba was started by Alexander Clavel in 1859 as a small dyeworks in Basel, Switzerland. By the time the firm was incorporated in 1884, as Chemical Industry in Basel (CIBA), research had already begun in the area of pharmaceuticals. Today, the Pharmaceuticals Division of Ciba-Geigy Corporation is one of the top ten pharmaceutical producers in the United States employing more than 3,000 people. Ciba Pharmaceutical Company and Geigy Pharmaceuticals continue to operate independent marketing departments in the United States.

**Control-O-Fax Corp.**

#10

A complete line of systems for the professional office. Systems that are handled in-office and which help increase in-office payments, cut down on insurance paperwork and help solve the problems of poor collections.

**Datamedic Corporation**

#59

The Datamedic system is a complete, automated accounting and billing service designed to eliminate handwritten records through the use of a specially designed Datamedic terminal located in the doctor's office.

The Datamedic service maintains records of all patient transactions, prepares and mails patient statements, and provides monthly records of account status.

The key to the Datamedic service is a small, attractive terminal located in the doctor's office. This terminal is connected by a private telephone line to a computer center in the immediate vicinity of the doctor's office.

**Dista Products Company, Division Eli Lilly**

#44

You are cordially invited to visit the Dista Products Company exhibit. Our sales representatives in attendance will welcome your questions about our pharmaceutical products.

**Dow Diagnostics**

#46

In-office diagnostic blood chemistry systems will be displayed.



**Elmed, Inc.****#31**

A complete line of specialty instruments for ophthalmology, otolaryngology, general surgery, proctology, gynecology, and plastic surgery, including electro-surgical units, suction coagulators, snares, disposable sigmoidoscopes, laryngoscopes, cryosurgical units, automatic micro forceps and fiberoptic headlights will be exhibited.

**The Emko Company****#54**

The Emko Company, specialists in foam delivery systems, presents Emko Vaginal Foam Contraceptive, Emko Pre-Fil, Because Contraceptor (a remarkable birth control invention), Emko Dienestrol Foam for atrophic vaginitis, Sunril Capsules for relief of tension and pain related to menstruation, and My Own Feminine Towlettes. Professional detailed information on all Emko products is available at the Emko booth.

**Encyclopaedia Britannica, Inc.****#63**

As part of our exhibit we will have on display the all-new 1975 edition of Encyclopaedia Britannica 3, The Britannica Junior and other related products.

**C. B. Fleet Company, Inc.****#11**

This exhibit will feature Fleet Enema with new Comfortip, Fleet Children's Enema, Fleet Mineral Oil Enema, Phospho-Soda, and Biscloxx.

**Group Health Incorporated****#32**

Here displayed will be programs for innovation in the public interest. There will be presentations of new health service programs by GHI and discussion of current health insurance programs.

**Johnson and Johnson****#42**

The Dermatological Division highlights new entries in our broadening line of skin care products. Featured are Retin-A Brand<sup>®</sup> tretinoin, the topical vitamin A acid treatment for acne vulgaris and Miconazole<sup>®</sup> brand miconazole nitrate cream 2 percent, a topical antifungal. Also to be displayed are Purpose Brand Soap<sup>®</sup> and Shampoo.

**Keter, Inc.****#50**

Publications of Keter Publishing House will be on display.

**David & Charles Levinson****#18**

Products displayed will be:

Medco Dublett-Duol ultrasound with polym-fitted transducers. Trigger points and symptom areas treated with 2 sound heads

Medco-Sonloter Twin: A diagnostic and therapeutic instrument, combining synchronized and pulsed ultrasound with smooth Medcolator current with continuous, pulse and surge settings

Medcolators: Models K & G. Medcolator with straight or interrupted galvanic currents

Medcotherm: Combination neuromuscular stimulation and moist heat, thermostatically controlled

Martin Short Wave: Automatic tuning, deep penetration. Cardioline E.K.G. Battery operated, or plug-in

**Marion Laboratories, Inc.****#19**

Marion Laboratories introduces you to the most recent product in its nitroglycerin family — Nitro-Bid<sup>™</sup> (Nitroglycerin 2%) Ointment. Let us show you how the specially designed applicator helps your patient apply the ointment safely and accurately. We'll explain how you can use Nitro-Bid Ointment as an adjunct in treating patients with angina pectoris.

**Merrill Lynch, Pierce, Fenner, and Smith, Inc.****#38**

The exhibit will display investment plans for professionals, general investment information and provide a stock quotation service.

**Metpath, Inc.****#55**

Here described will be clinical laboratory testing services.

**New Jersey Public Broadcasting Authority****Special TV**

New Jersey Public Broadcasting operates the non-commercial Jerseyvision network consisting of four public television stations covering the state. Network airs news, sports, public affairs, instructional and cultural programs of interest to New Jerseyans, plus the best of PBS programming. Stations include WNJS-TV 23, South Jersey, WNJT-TV 52, Trenton, WNJB-TV 58, New Brunswick and WNJM-TV 50, Montclair.

**PRO Services, Inc.****#43**

Now that Keogh allows up to a \$10,000 contribution, every Society member will want to un-

derstand all the ramifications of the PRO-Medical Society of New Jersey Master Keogh Plan, and how these tax deductible contributions can be integrated into their existing financial savings plan.

The Medical Society Trust provides the broadest possible range of investment options as follows:

1. Regulated Investment Companies
2. Savings Accounts
3. Money Market Instruments
4. Investment Advisor
5. Guaranteed and Variable Annuities
6. Life Insurance
7. U.S. Government Bonds
8. Common Stocks and Bonds
9. Common Trust Fund
10. Automatic Stock Investment Plan
11. Any combination of the above

A Unique Master Keogh Plan

### **Prudential Insurance Company of America** **Coffee Lounge**

Contractor with the Federal Government for Medicare Part B in New Jersey, North Carolina and Georgia and Part A in New Jersey, also with the State of New Jersey for Medicaid.

### **Radio Broadcasting Company** **#37**

Here displayed will be radio paging and mobile telephone services.

### **A. H. Robins Company** **#28**

You are cordially invited to visit the A. H. Robins exhibit and meet our representatives who will welcome the opportunity to discuss products of interest with you.

### **Roche Laboratories** **#1, #2, #3**

Roche Laboratories and Roche Clinical Laboratories will exhibit pharmaceutical products and original research in medicine and chemistry.

### **Sandoz Pharmaceuticals** **#52**

Sandoz Pharmaceuticals will present current information on products as well as information on the several new learning systems currently available to members of The Medical Society of New Jersey.

### **W. B. Saunders Company** **#65**

A full selection of our medical books, journals, periodicals, and audio-visual aids will be on display.

Of special interest will be recent publications such as: Tumulty: The Effective Clinician; Conn, Rakel, and Johnson: Family Practice; Ingelfinger, et al.: Controversy in Internal Medicine II; and Sleisenger and Fordtran: Gastrointestinal Disease.

### **Searle Laboratories** **#51**

You are cordially invited to visit the Searle booth where our representatives will answer any questions regarding Searle Products of Research. Featured will be information on the Cu-7<sup>®</sup>, Oculen<sup>®</sup>, Demulen<sup>®</sup>, Enovid<sup>®</sup>, Aldactazide<sup>®</sup>, Aldactone<sup>®</sup>, Flagyl<sup>®</sup>, Lomotil<sup>®</sup>, Pro-Banthine<sup>®</sup>, Metamucil<sup>®</sup> and other drugs of interest.

### **Donald F. Smith and Associates** **#48**

Blue Cross-Blue Shield (Both 500 and 750 Series Schedules) — custom tailored to provide the additional benefits required to meet the needs of today's physician, his dependents, his employees and their dependents. Specialized administration by Donald F. Smith and Associates of Princeton, provides you with answers to your questions regarding coverage and help with your claims problems.

### **United States Air Force Medical Services** **#47**

Information on Career Opportunities for Physicians in the U.S. Air Force and on Air Force sponsored Medical Education Programs is provided by this exhibit.

### **USV Pharmaceutical Corporation** **#53**

USV Pharmaceutical Corporation will feature products for the treatment of hypertension. Of special interest is the Compliance PAK to help combat Hypo-Compliance.

### **Wyeth Laboratories** **#17**

Wyeth will feature Ovral<sup>®</sup> (each tablet contains 0.5 mg. norgestrel with 0.05 mg. ethinyl estradiol) Wyeth, Tablets and Serax<sup>®</sup> (oxazepam) Wyeth, Capsules 10, 15, 30 mg. — Tablets 15 mg.

**MOTION PICTURE THEATER**  
10 a.m. and 2 p.m. Every Day—Convention Center

# 48th ANNUAL MEETING

Woman's Auxiliary to The Medical Society of New Jersey

Saturday through Tuesday  
May 31-June 3

Cherry Hill Inn  
Cherry Hill

## Registration — Lobby Floor, Cherry Hill Inn

Saturday, May 31—12 noon to 4:30 p.m.

Sunday, June 1—9:30 a.m. to 4:30 p.m.

Monday, June 2—8:15 a.m. to 4:30 p.m.

## Schedule of Events

### Saturday, May 31, 1975

- 1:00 p.m.—Registration for Art Show  
(lobby floor, Cherry Hill Inn)
- \*7:00 p.m.—Convention Celebration  
Entertainment and Dancing  
(Colony Room, lower level, CHI)

### Sunday, June 1, 1975

- 9:30 a.m.—Art Exhibit  
County Press and Publicity Exhibit  
County Activities Pictorial Display  
(lobby floor, Cherry Hill Inn)
- 10:00 a.m.—Pre-convention Board Meeting  
(Independence Room, lower level, CHI)
- 11:15 a.m.—Fellowesses' Brunch  
(Empire Room, lower level, CHI)
- 1:00 p.m.—"A New Look at Olde Philadelphia"  
Bus Tour (Buses leave rear of Hotel)
- \*4:00 p.m.—Golden Merit Award Ceremony  
(Convention Center, 4th level)
- \*6:30 p.m.—Inaugural Reception honoring  
President-elect McGuire  
(Presidential Ballroom, ground floor, CHI)

### Monday, June 2, 1975

- 8:15 to 9:00 a.m.—Coffee and Donish (complimentary)  
(Colony Tavern, lower level, CHI)
- 9:00 a.m. to 12:00 noon—General Session  
(Colony Room, lower level, CHI)
- 12:00 to 1:00 p.m.—Cocktail Hour  
(Colony Tavern, lower level, CHI)
- 1:00 p.m.—President's Luncheon  
Fashion Show  
(Presidential Ballroom, ground floor, CHI)  
All doctors' wives cordially invited.
- \*5:30 p.m.—JEMPAC Wine and Cheese Reception  
(Convention Center)
- \*8:00 p.m.—Dinner-dance  
Entertainment and Dancing  
(Presidential Ballroom, ground floor, CHI)

### Tuesday, June 3, 1975

- 8:00 a.m.—County Presidents' Breakfast  
(Empire Room, lower level, CHI)
- 10:30 a.m.—Post-convention Board Meeting  
(Independence Room, lower level, CHI)

## Convention Committee

Chairman—Mrs. Lucius Tarchiani  
Co-Chairman—Mrs. David Gehring

\*MSNJ events to which Auxiliary members  
are cordially invited.



# Come see us in Cherry Hill

Blue Shield of New Jersey will welcome members of the profession at Booth #12 at the Annual Meeting of The Medical Society May 31 - June 3.

We welcome the opportunity to discuss the growth of our Usual, Customary or Reasonable (UCR) and Series 750 Fee Programs. And if you're not a participating physician, we'll be glad to discuss the advantages of participating.

Our physician medical advisors and representatives of our Physician Relations staff will be pleased to visit with physicians, and to answer questions.

We will be delighted also to tell you about systems recently installed to improve claims service.



**Blue Shield**  
of New Jersey



# Bioequivalence

Form with fields for patient information and a date.

PATIENT'S NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_  
STATE: \_\_\_\_\_  
ZIP: \_\_\_\_\_  
DATE: \_\_\_\_\_

15



# the weight of scientific opinion:

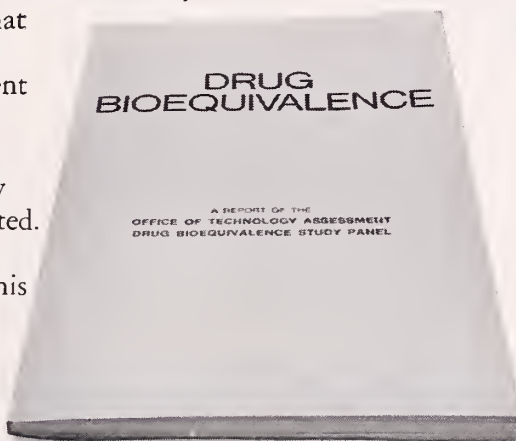
If the pharmacist substituted a chemically equivalent drug for the one you have specified for your patient—could you be certain of that product's safety and effectiveness simply because the chemical content was the same?

Definitely not, unless bioequivalence tests and other quality assurance checks had been conducted. The pharmaceutical industry and many scientists have maintained this position for years, but others have questioned it. Now the Office of Technology Assessment of the Congress of the United States has reported on the issue in its Drug Bioequivalence Study.\*

Here are a few definitive statements in the O.T.A. report:

"...the problem of bioinequivalence in chemically equivalent products is a real one. Since the studies in which lack of bioequivalence was demonstrated involved marketed products that met current compendial standards, these documented instances constitute unequivocal evidence that neither the present standards for testing the finished product nor the specifications for materials, manufacturing process, and controls are adequate to ensure

that ostensibly equivalent drug products are, in fact, equivalent in bioavailability.



"While these therapeutic failures resulting from problems of bioavailability were recognized and well documented, it is entirely possible that other therapeutic failures and/or instances of toxicity that had a similar basis have escaped attention."

The Pharmaceutical Manufacturers Association supports federal legislative amendments that would require manufacturers of duplicate prescription pharmaceutical products, subject to new drug procedures, to document:

(a) chemical equivalence; and

(b) biological equivalence, where bioavailability test methods have been validated as a reliable means of assuring clinical equivalence; or (c) where such validation is not possible, therapeutic equivalence.

In addition, the PMA supports federal legislation that would require certification of all manufacturers of prescription products before they could start in business, annual inspections and certification thereafter, and strict adherence to FDA regulations on good manufacturing practices.

The overall quality of the United States drug supply is excellent. But only a total quality assurance program, envisaged in these and other policy positions adopted by the PMA Board of Directors in 1974, can bring about acceptable levels of performance by all prescription drug manufacturers and thereby assure the integrity of your prescription...



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W.  
Washington, D.C. 20005

\*Copies of the complete report on Drug Bioequivalence may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

# protecting the integrity of your prescription



# 3 REASONS WHY

you'll like our

## N.J. Blue Cross-Blue Shield PROGRAM

1. Unmarried children are covered to age 23
2. 120 days coverage for *all* conditions
3. Full semi-private rate paid in non-member hospitals outside New Jersey.

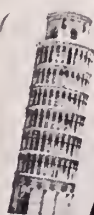
### The MEDICAL SOCIETY OF NEW JERSEY PROGRAM

Administered by: **Donald F. Smith and Associates**

Research Park, 1101 State Road  
Princeton, New Jersey 08540  
(609) 924-8700 or (201) 622-6046

When **impotence** due to  
**androgenic deficiency**

is driving them apart



**Android® - 5** MUQETS  
**Android® - 10** BUCCAL Tabs  
**Android® - 25** OPAL Tabs

Methyltestosterone N.F. — 5, 10, 25 mg.

**DESCRIPTION:** Methyltestosterone is 17 $\beta$ -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunuchism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Postpubertal cryptorchidism with evidence of hypogonadism. 5. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating male for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpubertal cryptorchidism, 30 mg. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250.

Write for Literature and Samples

**BROWN** THE BROWN  
PHARMACEUTICAL CO., INC.

2500 West Sixth Street, Los Angeles, California 90005



## Medical Practice Analysis

**James A. Rogers, M.D., Paterson\***

Physicians are increasingly aware of continuing medical education as a means of keeping abreast of information necessary to maintain a quality medical practice. Sources for such information and knowledge are readily available in many areas today. Many years ago one had to travel to large medical centers for continuing education (then called postgraduate education), although county, state, and national medical societies provided educational experiences at their meetings. This early phase of continuing medical education was purely voluntary.

The next phase of continuing medical education emerged shortly after World War II, in the late 1940's and early 1950's, when many large hospitals, medical centers and medical schools first provided "refresher courses" for the returning veteran and followed these by a variety of postgraduate programs. This was dictated by new technology to improve medical care. At the same time many community hospitals developed residency programs, which stimulated the medical staff to learn through teaching.

In the mid 1960's, medical educators began questioning the value of the existing programs and challenged the traditional methods of teaching. This included the "scattered type" lecture for the entire staff with the presentation of exotic and non-relevant topics. They began to ask questions: "You are teaching, but what is being learned? What evidence do you have that you have changed the participant's behavior? Has this change in behavior produced an improvement in the quality of patient care?"

Simultaneously, accountability of performance began to take a more objective role in the way medicine was practiced and health care delivered. Medical audit and utilization review assumed more importance in the community hospital, where health professionals did much of their problem-solving. The hospital record was needed to demonstrate the knowledge and the judgment necessary for the accountability of performance demanded by outside influences.

This demand resulted in development of tissue committees, medical record committees, credential committees, operating room committees, and so on. It is axiomatic that physician competence is a fundamental element of quality medical care and that medical education enhances such competence. Since the goal of medical education is the production of physicians who are equipped to provide optimal care for the public, then the ultimate evaluation of an educational system is the effectiveness of its products. Questions raised about quality of care and professional competence, therefore, also question the quality of medical education. The growing problem of malpractice suits has also given added impetus to this issue.

Many years ago tradition established the competence of practitioners through licensure. The states originally developed licensure for health practitioners to protect the public from unprepared individuals who might offer services beyond their scope; the boards of medical examiners continue to provide such a basic safeguard. Licensure establishes and enforces minimal standards for entering and remaining in practice. However, most licensure laws evolved before the explosion in scientific and technological knowledge and thus provide no means for insuring continuing competence of the license. Evaluation of the examining instruments used by licensing bodies indicates a basic lack of a frame of reference for the definition of competence.

For many years medical specialty boards have attacked the problem of determining competence. Since certification is voluntary, the appropriate specialists on these organizational bodies have provided an important service to the public and to the profession by elevating professional practice standards. However, the

\*Dr. Rogers is President of The Medical Society of New Jersey and Coordinator of the Office of Continuing Medical Education, CMDNJ, Rutgers Medical School. This address was presented to the Bergen County Medical Society, November 1974.



certification process as a means of assessing competence is not without flaws. Conventional certification examinations, which were initiated without first attempting to define competence in a specialty area, focus primarily on the candidate's ability to recall. Furthermore, there are unpredictable factors that operate in the examining process, such as the variability among examiners, the material selected for testing, and the ability of the candidate to communicate.

The licensing and the certification process have a degree of effectiveness at the time they are exercised, which is the point of career entry, but neither addresses the maintenance of competence over time.

Peer review, which is the evaluation by practicing physicians of the quality and efficiency of services ordered or performed by fellow practicing physicians, is now emerging. While the organization, location, technique, and impact of peer review efforts differ substantially, their common goal is to improve the quality of patient care.

Within hospital medical staffs, the concept of peer review — "medical care evaluation" — is well established as one means of achieving better patient care. Most hospitals have had tissue review, utilization review, medical audit and similar committees as a medical staff function for many years. Through an analysis of the care actually being provided to hospital patients, substandard patterns of practice are identified and appropriate action taken to effect necessary improvement through education. Physician education which leads to a change in behavior results in improved patient care and a quality of care acceptable to all.

Medical care evaluation programs in most hospitals operate through a review committee which is responsible to the executive medical staff committee. An analysis of statistical data is generated from abstracts of all patient records and the conclusions reached through the evaluation process reflect the educational emphasis and potential of the medical staff peer review program.

Efforts to develop a broad base for hospital medical care evaluation have been initiated in

several communities. These activities have promise for increasing the effectiveness of institutional review programs and further improving the level of patient care. Many state and county medical societies have created peer review programs. Coordinating all of the peer review efforts of a locality — "medical practice analysis" — is a medical society responsibility requiring considerable planning, staffing, and involvement. Focusing community-wide efforts through the medical society provides a mechanism which can unify review programs and assure that the component review functions are being performed effectively. Medical society review programs must be and are educational.

Every physician has many avenues for enhancing his knowledge. Self-assessment, which is one method, is a systematic inventory made by the individual of his acquaintance with, and access to, currently valid biomedical knowledge and procedures. It assists the practicing physician to understand, to maintain, and to improve his competence. Self-assessment complements peer review activities for it contributes insight into what the physician knows.

Two components of the physician's continuing competence are (1) his "fund of knowledge" (what he knows) and (2) his characteristic "pattern of practice" (what it is possible for him to do). Both self-assessment and peer review are oriented to determine the competence of the physician throughout his lifetime of practice and to motivate him to become and to remain competent, in order to provide his best service for the patient. Each physician must seek and eventually find the method which is most practical and educationally profitable to him. Many physicians make notations of the medical problems that arise in their practice during a given period of time, say a week or a month, and research the answers to the problems *via* journals, audio-visual aids, meetings, or "curbstone" or formal consultations. This is a valid approach to continuing medical education, as is attendance at scientific meetings sponsored by medical societies.

Many physicians devote a good deal of time to medical journals, a method of continuing education which research has demonstrated to be



number one in popularity.

Another method, the medical audit system, will utilize the results of peer review for purposes of medical education. Emphasis will hopefully be placed on strengths and weaknesses, procedural deficits that affect health care, and knowledge lack. Fortified with such data from medical audit at our hospitals, it will be possible more meaningfully to direct our educational activities to topics that will help improve patient care. This may involve lectures, demonstrations to improve skills or to introduce new skills and changes in hospital procedures. One should not forget didactic refresher courses or even a "mini-residency" for a month or two.

Regardless of the method of continuing medical education it must be productive to the physician and effect a change in behavior, objectively demonstrated to provide quality patient care.

The Medical Society of New Jersey, along with the American Medical Association, encourages systematic participation in continuing medical education. The AMA for the past several years has promoted a liberal program to obtain the Physician's Recognition Award. The Medical Society of New Jersey has endorsed continuing medical education as a requisite for membership. This action reflects organized medicine's pledge of quality medical care to the American public.

#### INFORMATION FOR READERS AND CONTRIBUTORS

*The Journal*, the official organ of The Medical Society of New Jersey, is published monthly under the direction of the Committee on Publication. *The Journal* is released the first week of the month, and a copy is sent to each member of the Society.

*Change of Address:* Notice of change of address should be sent promptly to The Medical Society of New Jersey, P.O. Box 904, Trenton, New Jersey 08605.

*Communications:* Members are invited to submit to *The Journal* any suggestions for the welfare of the Society, as well as comments or criticisms of material in *The Journal*. All such communications should be directed to the Editorial Office of *The Journal*. The Publication Committee reserves the right to publish, reject, edit, or abbreviate all communications submitted.

*Contributions:* Manuscripts (original and one copy) submitted to *The Journal* must be typewritten, double-spaced on letter size (about 8½ x 11 inch) paper, and forwarded to the

Editorial Office at the address below. The Publication Committee expressly reserves the right to reject any contributions, whether solicited or not, and the right to abbreviate or edit such contributions in conformity with the needs and requirements of *The Journal*. Galley-proofs of manuscripts will be submitted to authors for correction of typographical errors. Rewriting or reinsertion of material changed or deleted by the editor is not permitted. Every care will be taken with the submitted material, but *The Journal* will not hold itself responsible for loss or damage to manuscripts. It is understood that material is submitted here for exclusive publication in this *Journal*.

*Illustrations:* Authors wishing illustrations for their articles will submit glossy prints or original drawings.

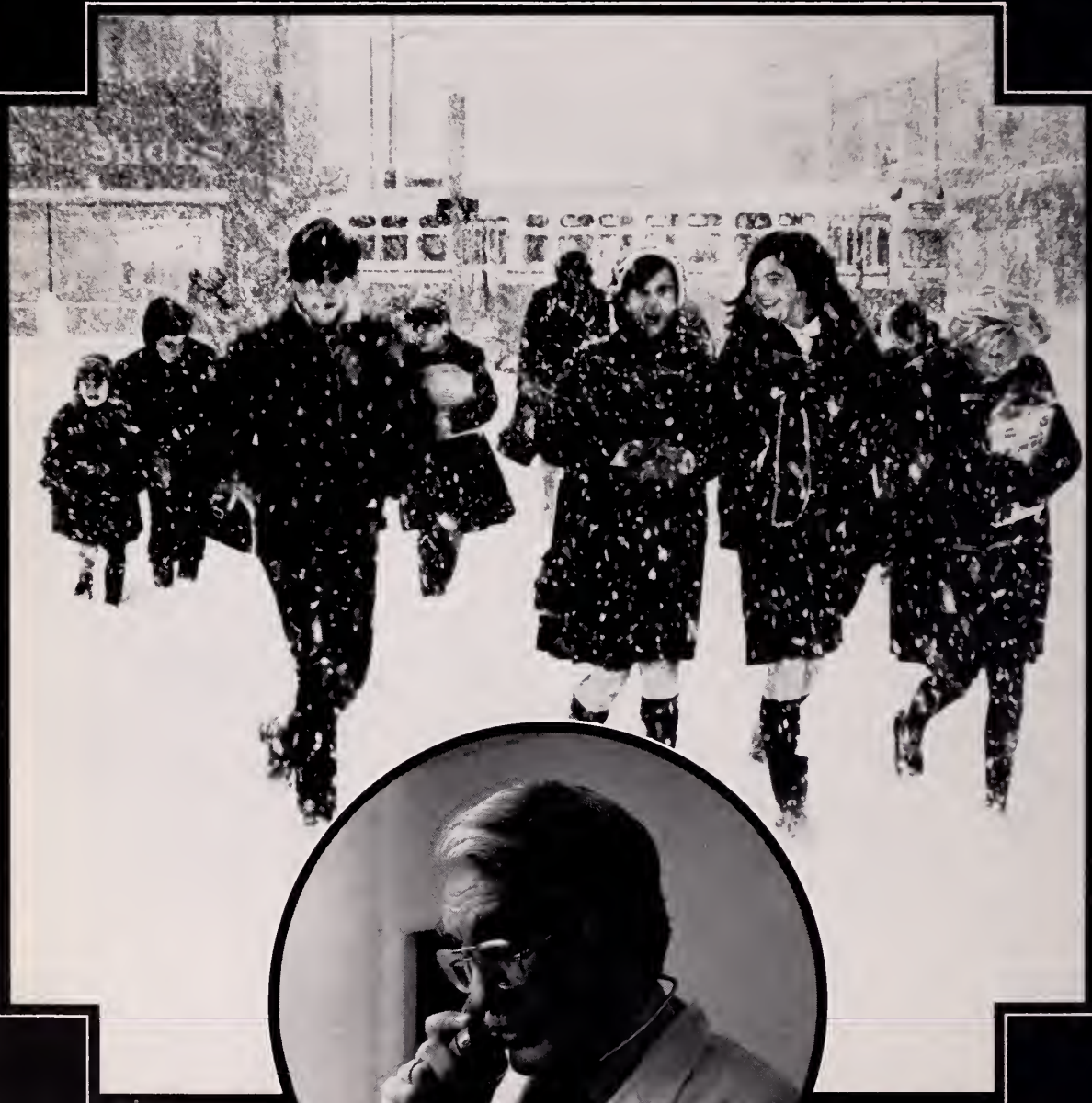
*Bibliography:* Format used in JAMA must be followed. References should be numbered in order of citation in the text.

*Reprints:* Reprints may be ordered after the author has been notified that his article has been selected for a specific issue of *JMSNJ*.

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# NEW JERSEY DOCTORS' NOTEBOOK

## Trustees' Minutes

February 16, 1975

A regular meeting of the Board of Trustees was held on February 16, 1975, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

*Guide for Hospital Long Range Plans . . .* Reviewed a draft of the Planning Guide for Hospital Long Range Plans presented by Mr. David Wagner, Deputy Commissioner of Health, and Mr. Charles Pierce, staff member of the Department.

The Health Care Facilities Planning Act, Chapters 136 and 138 Laws of New Jersey, 1971, requires a health care facility in section 12a (4) of Chapter 136 to "prepare and review annually a long-range plan compatible with the State Health Plan established pursuant to . . . Federal Law 89-749." The authority of the State to require these plans and that they be shared with other agencies is derived from this State law.

There are two primary purposes for the State of New Jersey to require the development of long-range plans by health care institutions. The first is to encourage hospitals to use a proven management process to analyze their present and future roles in the health care system in their area. Second is to promote and improve areawide health planning.

The intention of the State of New Jersey is to encourage a useful and relatively coherent planning process in all health care institutions. One year after publication of the regulations for planning each health care institution must submit two copies of its plan. One copy will stay with the Department of Health and the other will be sent to the appropriate areawide planning agency.

The State will certify a plan to indicate only that it meets the regulations. An incomplete plan will be returned to the institution with the deficiencies noted. State certification does not mean or imply approval of the institution's future intentions or expectations that are described in the plan.

*Health Manpower Data Report on Physicians . . .* Reviewed the recently published health manpower data report on physicians. (Dr. Lewis Dars, Director, Office of Health Manpower, New Jersey Department of Higher Education, and Mr. Jon Tomson of that office were present.)

The document is the first in a series of health manpower information reports developed through the auspices of the Interagency Advisory Committee on Health Manpower. The Interagency Advisory Committee, a consortium composed of organizations from throughout New Jersey, has, for the last year and a half, been actively analyzing the field of health manpower. It was evident at the inception of the consortium that there was no source of uniform health manpower data in the State. Since that time, the Interagency Advisory Committee has been involved in data collection activities in an attempt to develop a uniform data set on the major health manpower occupational categories. The report presents the results of these activities as they relate to New Jersey licensed physicians (both M.D. and D.O.).

Specific results reflected in the report are: (1) availability of information to analyze the need for physician manpower by location and specialty; (2) an indication of the number of physicians actually practicing in the state; and (3) assumption of responsibility by the Department of Health for maintaining the data system. This includes updating of information.

Another survey will be mailed with license registration renewal. Notification to MSNJ will be made prior to the mailing.

*AMA Delegation . . .* Concurred in the action taken by the Executive Committee in naming George L. Benz, M.D., the additional AMA Delegate to which MSNJ is entitled as a result of increased membership during the 1974 calendar year. (AMA required notice of this appointment by January 29.)

*Note:* There are now two vacancies in the alternate delegates, both of which will be filled at the 1975 annual meeting — terms to be effective January 1, 1976.

*AMA Financial Crisis . . .* Concurred in the action of the Executive Committee in authorizing a solicitation of the membership for a voluntary giving of at least \$5 to afford some relief in the AMA's very real financial crisis.

*Malpractice Liability Insurance . . .* Received a copy of the bulletin to legislative keymen urging defeat of Assembly Bill 1552:

A-1552 is an act concerning medical malpractice liability insurance, requiring certain licensed medical practitioners and health care facilities to maintain such insurance, and creating a New Jersey Medical Malpractice Reinsurance Association, a New Jersey Medical Malpractice Reinsurance Recovery Fund and a New Jersey Health Care Facility Insurance Deductible Fund.



This bill proposes withholding of a physician's license until a Certificate of Insurance is provided. The licensure of a physician is one facet in the underwriting of professional liability insurance. Procedurally, no policy can be issued other than to one who is already licensed. This proposed act places a bureaucratic block in the licensure and renewal process as well as totally ignoring the fact that no knowledgeable physician would practice without adequate insurance.

The existing program provides for maximum allowance of premium dollars to pay for claims and legal expenses. Many economies are affected by concentrating coverage in one company and by using highly sophisticated specialists in investigation, defense, underwriting, and marketing. Diffusing the operations among 15 or more companies, each with its own expense elements will automatically result in substantially higher premiums as well as the loss of control of statistics so essential to computation of future rates.

There is no problem of availability of insurance for physicians. This bill uses subterfuge to force all health care facilities into a state-administered program, total intermingling of problems of each without any right of appeal for inequitable treatment.

This proposal creates a placebo effect but does not attack primary causative factors in inflationary awards, such as unlimited statute of limitations, or over an interpretation of other statutes or case law. An in-depth study of malpractice will seek out and solve some of the root problems. Secondly, consideration might be given to an alternate approach already suggested, which will enable the state to respond should any one segment of the health care industry encounter problems including unavailability of insurance.

**Multiphasic Health Testing Programs . . .** Approved the following recommendation from the Council on Medical Services:

That the Board of Trustees send a communication to the State Board of Medical Examiners of New Jersey encouraging them to be more stringent in the enforcing of the Bio-Analytical Laboratory Act.

**Committee on Publication . . .** Approved, in principle, the following suggestions concerning *The Journal's* recognition of the bicentennial year, with the understanding that the extra cost involved will be submitted to the Board as soon as it is available:

1. A special cover will be designed for use during the year 1976 starting with the January issue.
2. The January 1976 issue will be dedicated to a series of papers dealing with "activities of physicians during the Revolutionary struggle." These will be provided by Doctor Morris Saffron, Doctor Fred Rogers, and others with an interest in medical history.
3. Each subsequent issue during 1976 will contain at least one paper of medical historical significance.

The publication costs will be increased only by the amount of the fee for the artist's design and the printer's preparation of the new cover.

**Litigation Fund for Committee on Long Range Planning and Development . . .** Referred to the Committee on Finance and Budget a recommendation from the Committee on Long Range Planning and Development that the Board of Trustees establish a "Litigation Fund" to litigate the increasing number of rules, regulations, and legislation which are imposing illegal and unconstitutional restrictions on the practice of medicine. Use of this fund would be only for those issues that are of major and crucial significance.

**American Hospital Association . . .** Received as informational the following report, submitted by John S. Madara, MSNJ's regional delegate, on the Annual Meeting of the American Hospital Association, February 2 to 5, 1975:

1. Referred to its Council on Professional Services a resolution that the AHA "inform the American Board of Medical Specialties and the American Medical Association of its concern and demand that before such standards are changed in the future the AHA be consulted concerning the financial and administrative impact of proposed changes upon the function of hospitals."
2. Referred to its Council on Legislation a resolution opposing the twenty-four hour utilization review regulations and urging that it establish a policy "with medical associations to adopt a system of retrospective review."
3. Approved policy statements on *The Malpractice Problem*, *Financing Home Health Care Services*, *Financing Medical Rehabilitation Services*, and *Education of Social Workers*.
4. Approved by a vote of 138 to 1 the creation by the Board of Trustees of a captive reinsurance company to implement a national malpractice and general liability insurance program for hospitals; also a positive legislative program to seek remedies for the malpractice crisis. For this purpose, a special meeting of the House of Delegates has been called for May 16, 1975, "to consider a one-time special dues increase of up to \$4 per hospital bed to finance these programs."
5. Made no changes in its *Guidelines for Implementation of Certificate of Need* in the light of the passage of the *National Health Planning and Resources Development Act of 1974*. More specifically, it did not push for Recertification and Decertification.
6. Approved a summary of *Principles for a National Health Insurance Program*; and heard Al Ullman, the new Chairman of the House Ways and Means Committee, discuss his H.R. 1 Bill, and Senator Talmadge of Georgia discuss the Long-Ribicoff-Talmadge Bill.
7. Discussed unfavorably the validation surveys and electrical safety codes required by recent legislation.

**TV Programs . . .** Approved the following recommendation from the Council on Public

Relations concerning five programs offered by the Public Broadcasting Company for sponsorship by MSNJ (Depression — March 31; Aggression — April 14; Guilt — April 28; Anxiety — May 12; Sexuality — May 26)

That the Board of Trustees approve the \$1,500 cost for MSNJ sponsorship of the above-mentioned programs.

*National Health Planning and Resources Development Act of 1974* . . . Referred to the Executive Committee, for whatever action

necessary, a summary of the National Health Planning and Resources Development Act of 1974 (PL 93-641) and instructed that the item be considered at the February 18th meeting of the MSNJ and NJHA Executive Committees.

This new federal legislation requires the Governor to recommend to the Secretary of Health, Education, and Welfare, the boundaries of health service areas within this state. The agencies ultimately developed within these areas will have a major impact on health planning and the disbursement of federal project funds in future years. In order to accomplish this goal, it is essential for him to have the advice of the major health and health-related entities in the state.

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## CMDNJ Notes

Stanley S. Bergen, Jr., M.D.  
President, CMDNJ

New Jersey hospitals and the medical schools of the College of Medicine and Dentistry of New Jersey are making our state increasingly attractive to medical residents through the development of comprehensive, integrated residency programs.

Statistics show that in 1972-1973, 43 percent of 313 residents participated in integrated residencies at only six hospitals. In 1974-1975, 60 percent of 397 residents are participating at ten hospitals. This success story comes at an opportune time, for in July of this year the Council on Medical Education will no longer approve free-standing residencies. Our joint efforts, begun several years ago, will now pay off with educationally sound programs of the right kind.

Growth in numbers and diversity of programs are other important aspects of this college-hospital success story. In 1972-1973, the programs offered were limited to medicine, surgery, ophthalmology, orthopedics, and urology. Included now are plastic surgery, thoracic surgery, pediatrics, pathology, radiology, dentistry, and anesthesiology. This growth enhances the educational programs by giving our residents diversity of experience in many settings, and it helps to reinforce and expand services at the hospitals. The expanded spectrum of residencies

will also serve as a magnet to attract American-trained house staff officers, and it will be an assistance to the hospitals, if and when regionalization materializes.

Playing a key role in informing candidates about integrated residency programs in New Jersey is the New Jersey Council on Graduate Medical Education, which has distributed a comprehensive guide to graduate medical education in New Jersey to potential candidates for two successive years. A copy may be secured (free of charge) by writing to the New Jersey Advisory Council on Graduate Medical Education, c/o CMDNJ, 100 Bergen Street, Newark 07103.

It is important to recognize those hospitals that are participating in the integrated programs with our two medical schools, CMDNJ-Rutgers Medical School, Piscataway, and CMDNJ-New Jersey Medical School, Newark. In 1972-73 they were:

Newark Beth Israel Medical Center  
St. Michael's Medical Center  
Veterans Administration Hospital  
Jersey City Medical Center  
United Hospitals of Newark  
New Jersey Orthopedic Hospital Unit (The Hospital Center at Orange)

Added in 1974-75 were:

St. Joseph's Hospital and Medical Center  
Clara Maass Memorial Hospital  
Essex County Hospital Center  
Hackensack Hospital Association

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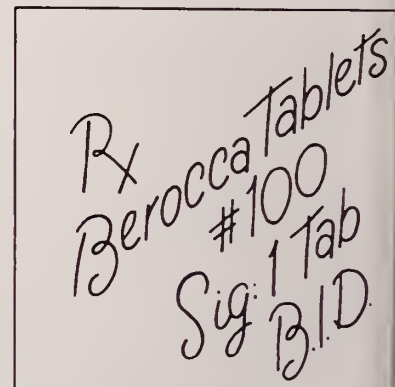
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## Vocational Rehabilitation Services for the Psychiatric Patient

The following statement was prepared by Edward R. Tabanor, M.D., Chief Psychiatric Consultant, New Jersey Division of Vocational Rehabilitation Services.

Physicians and social agencies are not making adequate use of the New Jersey Division of Vocational Rehabilitation Services for referral of patients with emotional and/or mental handicaps interfering with their capability of obtaining or maintaining themselves in an employment status. The Agency's thrust in these areas is comparatively recent as opposed to its role with orthopedic and other physical handicaps which comprised its initial impact immediately following World War II and increasing, for the most part, during the following three decades. During the past few years, there has been an explosive expansion of services to the emotionally handicapped, capping several years of increasingly flexible criteria for mental and emotional disturbances. The disadvantaged may include disabled public assistance recipients, public offenders, and substance abusers. Understandably, these more recent categories, as well as oftentimes the emotional and mental handicap categories, are not generally appreciable as probable candidates for services. This factor is compounded perniciously in the urban areas which have borne the onus of a crippling decrease of practicing physicians and social agencies in the past decade. It highlights the chilling irony of fewer referrals for those who need them most desperately.

The mode and goal of referrals deserve consideration. In many instances, the patient and the physician or the referring social agency have concurred on vocational goals and the patient presents himself for sponsorship with fixed, inflexible goals of his own. All involved are disappointed and frustrated when this is not approved for any of a number of reasons and the problem is often exacerbated when the patient is unwilling to even consider working toward more realistic goals.

The resolution of disappointment in referrals to the Agency lies in having a basic concept of its decision-making process, and the interplay of professional roles. The rehabilitation counselor is the "fulcrum" of the encounter process with the patient and communicates to the patient the processes of evaluation, the level of service delivery based on information compiled on the patient from multiple sources and on the patient's motivation, cooperation, and resources. The rehabilitation counselor is aided in defining options for the patient by supervisors in administrative sessions. The Division of Vocational Rehabilitation Services refers the patient for critical specialty examinations and psychological evaluation, on a contractual fee-for-service basis, predicated on recommendations of the medical evaluation, the referring physician or agency psychiatrist, if not by the counselor and/or the rehabilitation consultant physician (who does not see the patient but recommends on the basis of the client's records).

The patient must meet administrative criteria which are definite and categorical, and these are explored by the rehabilitation counselor and supervisors. Here enumerated are the criteria based on the medical model only.

1. A disability must be defined as noted previously; this has broadened over the years from orthopedic ones to other physical and psychiatric handicaps plus the emotional handicaps previously described.
2. The disability must interfere with obtaining and maintaining employment status.
3. Acceptance for treatment and for services is based on reasonable probability that these will correct or ameliorate the disability to allow employment or training or schooling for a vocation or profession or to stabilize present employment.
4. The patient is judged a feasible candidate for services in terms of motivation and capability to follow through on agreed vocational goals.

The referring physicians and agencies are encouraged to inquire of the rehabilitation counselor about the progress and disposition of referred patients so that, among other reasons, they will be better able to refer others in the future.

The Division of Vocational Rehabilitation Ser-

vices has offices throughout the State. Call 609-292-5987 or write to Division of Vocational Rehabilitation Services, Room 1005, Labor and Industry Building, Trenton 08625 for a listing and/or other information. Remember, the Division of Vocational Rehabilitation Services does offer services to the mentally and emotionally ill as well as the physically handicapped individual.

## Multiple Risk Factor Intervention Trial for the Prevention of Coronary Heart Disease (MRFIT)\*

It is timely to take this opportunity to acquaint you with the MRFIT program. We consider ourselves fortunate in being selected as one of the twenty centers† in the USA to participate in this program sponsored by the National Heart and Lung Institute. The primary objective is to determine whether a special intervention program will result in a significant reduction in mortality from coronary heart disease for a group of men considered to be at risk for coronary heart disease death. To achieve this objective a program is now in progress to identify by screening approximately 20,000 men aged 35-57 years, 600 of whom have one or more of the three major risk factors for coronary heart disease (elevated serum cholesterol, elevated diastolic blood pressure, and cigarette smoking), as identified by the Framingham Heart Study. Men who will be allowed to volunteer for the program should not have pre-existing clinical coronary heart disease or other specified causes for exclusion and must be willing to commit themselves to a six-year intervention program.

Of the 600 men so selected, 50 percent will be randomly allocated to a special intervention program and 50 percent will be referred back to their physicians or usual source of medical care. Men allocated to the special intervention program for lowering of serum cholesterol, reduction in blood pressure, and cessation of cigarette smoking will be strongly encouraged to

continue to see their own physicians for all other medical reasons. All clinical information collected on participants whether in the special intervention or usual care groups will be provided to their physicians. Participants will be seen for annual evaluation visits, the special intervention group at four-month intervals and more frequently as necessary for some individuals to achieve the targeted risk reduction.

Enrollment into this program must be completed by late Fall 1975. We are rapidly identifying individuals through industrial screening and general population solicitation and are accepting people into the program who live within a radius of no more than 50 miles from the clinical center which is based in Middlesex General Hospital. (Counties primarily involved will include Middlesex, Mercer, Monmouth, Union and Somerset.)

We would appreciate the assistance, understanding, and forbearance of our colleagues with the goals of this program. Any individual physician will have few, if any, of his patients enrolled in this trial. However, the trial may be encouraging people to see physicians more than they might have in the past. It provides our community with the opportunity to participate in this critical test of whether reversal of risk factors will lower coronary disease mortality.

Inquiries regarding this program are encouraged and should be made to Marise S. Gottlieb, M.D., Principal Investigator, Assistant Professor, Department of Community Medicine, CMDNJ-Rutgers Medical School, Piscataway 08854, or MRFIT Clinical Center, Middlesex General Hospital, New Brunswick 08901.

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†Another center in this state is located at the CMDNJ-New Jersey Medical School in Newark. The center is in St. Michael's Hospital and the principal investigator is Norman L. Lasser, M.D., Ph.D., Associate Professor, Department of Medicine. He may be addressed at the School, 100 Bergen Street, Newark.

\*From the Rutgers Medical School, CMDNJ. This statement was prepared by Marise S. Gottlieb, M.D., Assistant Professor of Community Medicine, who is Project Director of MRFIT.



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# **"Antiacid" action for ulcer patients...**

# **one of the many things you need in an anticholinergic.**



Pro-Banthine is considered adjunctive in total peptic ulcer therapy that may include diet, conventional antacids, bed rest, and other supportive measures.

Pro-Banthine is provided in several different dosage forms which will meet virtually any clinical need. It is just as versatile in filling patient needs, among which are:

**"Antiacid" action**—Pro-Banthine® (propantheline bromide) reduces gastric secretory volume and resting total and free acid.

**"Analgesic" action**—Pro-Banthine helps to control the acid-spasm-pain complex.

**Vigorous anticholinergic action**—Pro-Banthine® Vials, 30 mg., are for intramuscular or intravenous use when prompt and vigorous anticholinergic action is required.

**Mild anticholinergic action**—Pro-Banthine® Half Strength, 7.5 mg. tablets, for more exact adjustment of maintenance dosage in mild to moderate gastrointestinal disorders.

## **Pro-Banthine®** (propantheline bromide)

**a good  
option  
in peptic  
ulcer**



# PAIN RELIEF FOR THE MAJORITY

## **NO.4—for pain intensity below the need for injectables**

As a rule, only pain that requires morphine is beyond the scope of Empirin® Compound with Codeine No. 4. That's because it delivers a full grain of codeine. (In the preferred phosphate form.) Its antitussive action is particularly appreciated by patients with fractured ribs, and following chest or abdominal surgery. Its low addiction liability is a bonus for all patients who require potent analgesia.

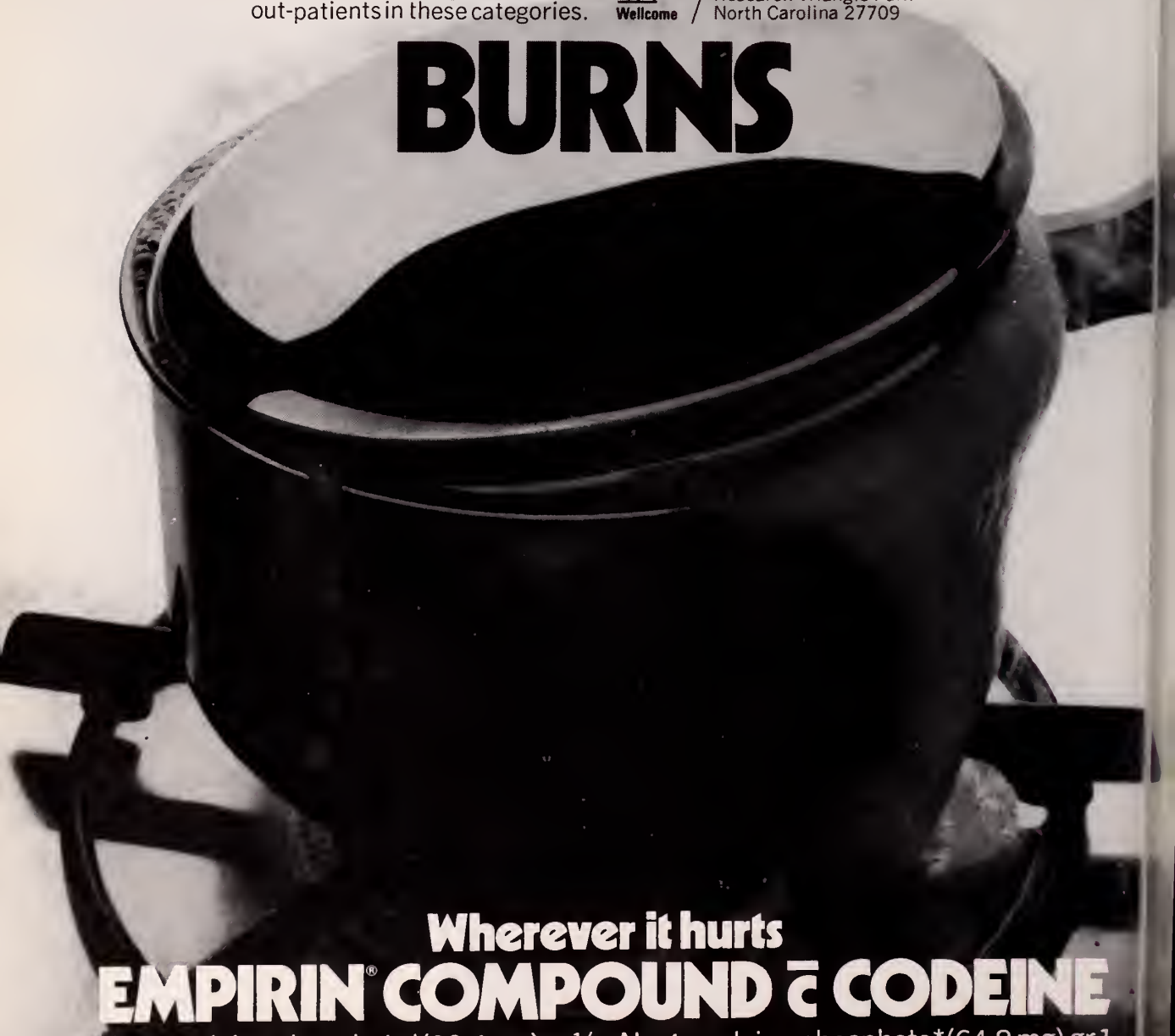
## **NO.3—for almost all other kinds of lesser pain**

Most other kinds of lesser pain respond to Empirin Compound with Codeine No. 3—whether musculoskeletal, neurological, soft-tissue or visceral. One might say No. 3 is an "all-purpose" analgesic—not too little, not too much. Just right for your out-patients in these categories.



Burroughs Wellcome Co.  
Research Triangle Park  
North Carolina 27709

# BURNS



**Wherever it hurts**

# **EMPIRIN® COMPOUND $\bar{c}$ CODEINE**

No.3, codeine phosphate\* (32.4 mg) gr  $\frac{1}{2}$  · No.4, codeine phosphate\* (64.8 mg) gr 1

\*Warning — may be habit-forming.

Each tablet also contains aspirin gr  $3\frac{1}{2}$ , phenacetin gr  $2\frac{1}{2}$ , caffeine gr  $\frac{1}{2}$ .



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

**Indications:** Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

**Contraindications:** Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia ( $>5.4$  mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities.

Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting may indicate electrolyte imbalance, diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, tetanus, pancreatitis, and xanthopsia have occurred with thiazides alone.

**Supplied:** Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

# KEEP THE HYPERTENSIVE PATIENT ON THERAPY KEEP THERAPY SIMPLE WITH **DYAZIDE**<sup>®</sup>

Trademark

Each capsule contains 50 mg. of Dyrenium<sup>®</sup> (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Neither inconvenient potassium supplements nor special  $K^+$  rich diets needed as a rule. Just 'Dyazide' once or twice daily for maintenance.

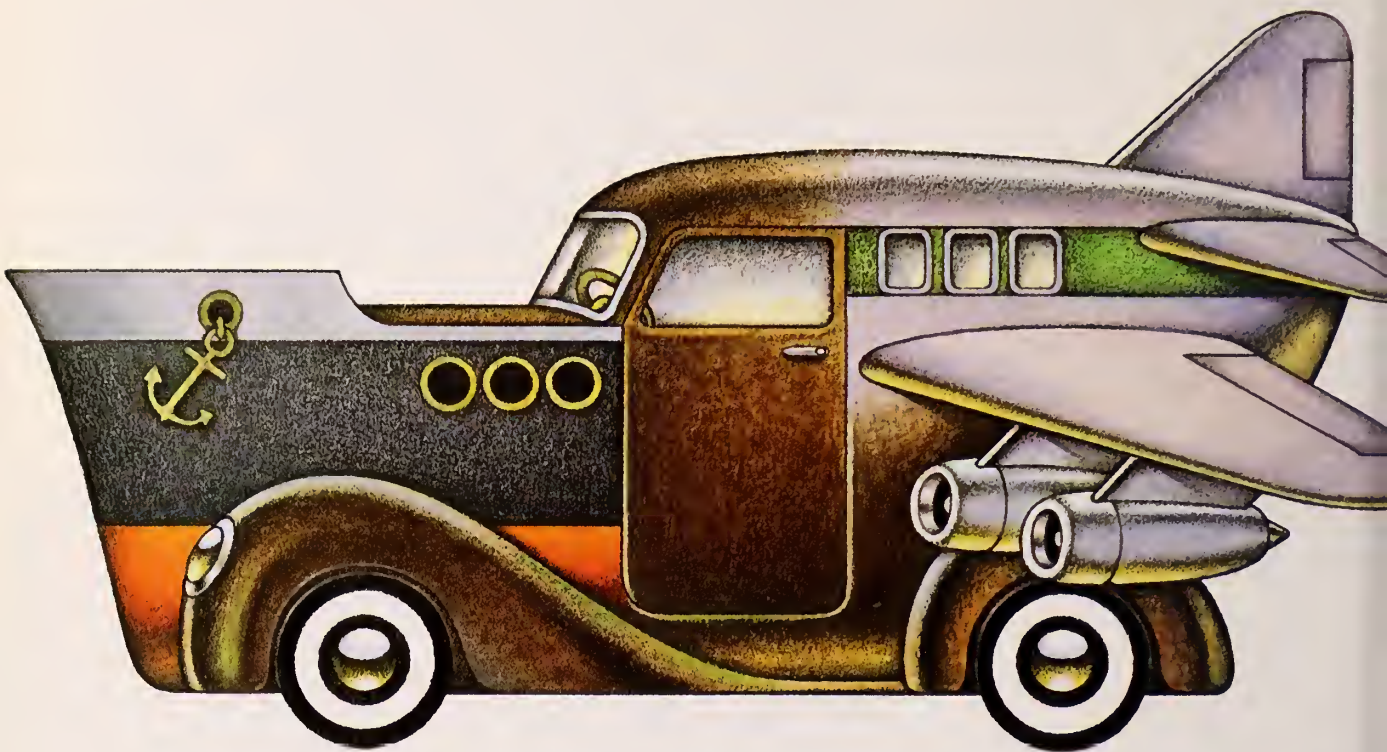


Two prime reasons patients drop out of hypertensive therapy are (1) the patient failed to understand directions, and (2) the regimen was overly complicated. Dosage is simple with 'Dyazide', easily understood, once or twice daily, depending on response. There's no need to complicate the regimen with potassium supplements or unwieldy potassium-rich diets.

SK&F CO.  
Kenilworth, N.J. 07033  
A subsidiary of  
Schering-Kline Corporation

## TO KEEP BLOOD PRESSURE DOWN AND KEEP POTASSIUM LEVELS UP





## On land, sea, and in the air...

**Up to 24 hours of effective control with a single dose...in nausea, vomiting and dizziness associated with motion sickness.**

Dosage: 25 to 50 mg. 1 hour before travel.

Available on prescription only.

**BRIEF SUMMARY OF PRESCRIBING INFORMATION**  
**CONTRAINDICATIONS.** Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did

not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

*Usage in Children:* Clinical studies establishing safety or effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

*Usage in Pregnancy:* See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

**ROERIG**   
 A division of Pfizer Pharmaceuticals  
 New York, New York 10017

**Antivert®/25 Chewable Tablets**  
 (meclizine HCl) 25 mg.  
 for motion sickness

## Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during February 1974:

	1975 February	1974 February
Aseptic meningitis	8	11
Primary encephalitis	2	1
Hepatitis: Total	210	158
Infectious	68	73
Serum	43	23
Unspecified	99	62
Malaria	1	0
Meningococcal meningitis (Civilian)	4	3
Mumps	40	182
German measles	52	44
Measles	46	823
Salmonella	51	101
Shigella	35	71
Tuberculosis	20	62
Syphilis:	81	74
Primary	32	
Secondary	49	
Gonorrhea	1204	1005

### Waterborne Outbreaks

In New Jersey there have been approximately six waterborne outbreaks investigated by the State Department of Health in the last ten years. Recently, an outbreak was investigated involving a restaurant served by its own dug well.

On February 5, 1975, the Communicable Disease Program was informed by a local health department of several cases of gastroenteritis occurring among women after attending a luncheon at the restaurant on January 23. Epidemiologic investigation revealed that other outbreaks of gastrointestinal illness had occurred in association with eating at the restaurant. Cases were documented from the previous New Year's Eve through the first week in February, clearly indicating an ongoing problem, and suggesting that water might be the source of the gastroenteritis.

One hundred and forty-two persons from parties at the restaurant completed questionnaires concerning illness and specific food and water history. The overall attack rate was 38.7 percent. No specific food could be implicated. Of the 92 persons admitting to consumption of one or more glasses of water 45.7 percent became ill.

The attack rate for persons consuming less than one glass of water was 26 percent. The difference was statistically significant ( $p < .05$ ).

The symptoms typically included nausea, vomiting, diarrhea, and anorexia lasting from several to 72 hours. The incubation period averaged 36.5 hours (range 3 hrs to 62.5 hrs). Several persons consulted physicians; one required hospitalization. There were no serious sequelae. Most individuals had mild symptoms and did not relate it to the restaurant.

The well serving the restaurant was found to be supplied by ground water whose source was at the base of a steep ridge on top of which were located houses with septic tanks. The open housing of the well was four feet deep and had a diameter of three feet. A piece of plywood covered the well. Water was pumped out by means of a rubber hose hanging into the well. There was no chlorinator or iodinator. Bacteriological analysis of water directly from the well and throughout the restaurant revealed gross evidence of fecal contamination. No specific pathogenic agents were isolated either from the water supply or from stool examination of ill patients.

The investigation is consistent with several typical findings described by a Center for Disease Control report on outbreaks of waterborne disease in the United States, 1971-1972: (1) Often there is gross fecal contamination of the water with inability to identify a specific etiologic agent, (2) Semi-public or individual supplies are the commonest sources of outbreaks (3) Lack of adequate purification or treatment of the water is most often responsible for the outbreak, (4) Symptoms commonly include nausea, vomiting, diarrhea, abdominal cramps, and fever.

It is erroneous to assume that waterborne outbreaks are limited to underdeveloped countries. Since waterborne outbreaks occur despite efforts to insure the purity of potable water, there needs to be continual surveillance over our potable water supplies, especially where public consumption occurs.

### Reference

Merson M, *et al*: Outbreaks of waterborne disease in the United States, 1971-1972. *J Infect Dis* 129:614-615, 1974.



Must vasodilators  
and therapy for  
other diseases  
come into  
conflict?



not if the vasodilator is

**VASODILAN<sup>®</sup>**  
(ISOXSUPRINE HCl)

the compatible vasodilator...  
no treatment conflicts reported

The cerebral or peripheral vascular disease patient often has coexisting disease<sup>1</sup> which calls for another drug along with his vasodilator. It may be a hypoglycemic, miotic, antihypertensive, diuretic, anticoagulant, corticosteroid, or coronary vasodilator.

Vasodilan is not incompatible with any of these drugs—no treatment conflict has been reported. And, unlike other vasodilators, Vasodilan has not been reported to affect carbohydrate metabolism, liver function, or intraocular pressure—or to complicate treatment of diabetes, hypertension, peptic ulcer, glaucoma, or liver disease.

In fact, there are no known contraindications to the use of Vasodilan in recommended oral doses, other than that it should not be given in the presence of frank arterial bleeding or immediately postpartum.

**Indications:** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

**Possibly Effective:**

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

**Composition:** Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

**Dosage and Administration:** 10 to 20 mg. three or four times daily.

**Contraindications and Cautions:** There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

**Adverse Reactions:** On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

**Supplied:** Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500 and Unit Dose.

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734017

1. Gertler, M. M., et al.: *Geriatrics* 25:134-148 (May) 1970.

**Mead Johnson** LABORATORIES

## Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

### Why They Do It?

Your Foundation operates under the guidance of its Board of Trustees. Sunday morning meetings are held monthly in Trenton. All Foundation plans and activities are reviewed and discussed, and the sessions take several hours. There are 45 members on the Board at present; the majority are practicing physicians representing every area of the State. Most of these men have been giving up Sunday mornings since early in 1973. Our Executive Committee, all physicians, give additional hours monthly on Monday evenings — they serve double duty, and have done so since the beginning.

No compensation is awarded for their participation. The usual travel reimbursement was waived in the beginning, a unique action in statewide committee work. These are all working doctors, with schedules as crowded as yours. Why do they continue to further reduce their leisure time for Foundation work?

Obviously, they must feel that the work of NJFHCE is important, and that every subdivision of medical activity must be represented in its deliberations and procedures. Like you, I am sure that they would all prefer that the extended pressures on medical care would disappear, so that they could serve their patients in peace and quiet, as in days of yore.

Demands for accountability in all aspects of professional life are not subsiding, but increasing by weight of law. A shrinking budget prods those who pay to ask if they are getting their money's worth, or would some other "system" be more efficient. Thinkers and planners aim at the most visible "healthcare" person — the physician.

Like it or not, the physician is the center of the target at which the snipers are aiming. The Foundation Board also feels that the physician is the focal point of whatever planners of delivery and accountability develop, but *not* as a target. NJFHCE was organized by and for the practicing physicians of New Jersey, and it continues its work in the same context. We visualize con-

verging lines of action with the physician remaining the central figure. Only he can measure what is effective and efficient care for his patients. HMO, IPA, Quality Care Evaluation, Continuing Medical Education, Claims Review, Medical Information Systems, and Coordination of the Delivery and Appraisal of Medical Care at all levels are matters which will require more analysis by physicians for the proper guidance of the planners and the public. Our responsibilities touch all the bases. Without the doctor as the center, we get parallel or divergent lines of activity leading to a bleak horizon. Whatever comes along, we intend to investigate and recommend. A recent commercial says, "We ain't just paint." The New Jersey Foundation "ain't just PSRO."

A round of applause to all who have given so many hours in organizing and guiding this Foundation.

## PHYSICIANS SEEKING LOCATION IN NEW JERSEY

*The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.*

ANESTHESIOLOGY — Mohan H. Kulkarni, M.D. 254-20 74th Street, Glen Oaks, New York 11004. Bombay (India) 1967. Board eligible. Group, partnership, solo, hospital. Available.

GENERAL PRACTICE — Ping-Fu Tsai, MD., 3207 Walters Lane, Apt. 103, Forestville, Maryland 20028. Kaohsiung Medical College (Taiwan) 1970. Group, partnership, out-patient clinic or emergency room. Available July 1975.

Leonard S. Spoto, Jr., M.D. 4266-1 Wilmington Drive, Andrews AFB, Maryland 20355. Bowman Gray 1971. Group (no OB). Available July 1976.

INTERNAL MEDICINE — Khalil Feiz, M.D., 55 Manor Dr., Apt. 5-A, Newark 07106. Isfahan (Iran) 1967. Subspecialty, gastroenterology and hepatology. House physician, emergency room, alcohol or drug addiction service, hospital or other institution. Available July 1975.



Man-Siak Mak, M.D., 1770 Grand Concourse, Apt. 2-K, Bronx, New York 10457. Natl. Defense Medical Center (Taiwan) 1968. Subspecialty, gastroenterology. Board eligible. Group or partnership. Available July 1975.

Kang-Yann Lin, M.D., 443 North Park, Lombard, Illinois 60148. Kaohsiung (Taiwan) 1967. Subspecialty, nephrology. Board certified. Solo, partnership, hospital. Available July 1975.

J. McNeill Gibson, M.D., Box 79, Univ. of Virginia Hospital, Charlottesville, Virginia 22091. Univ. of North Carolina (1972). Board eligible. Group or salary (Princeton area preferred). Available August 1975.

Pang-Hsung Wang, M.D., Laurel Heights Hospital, Shelton, Connecticut 06484. Taipei (Taiwan) Board eligible. Small group or partnership. Available July 1975.

NEUROLOGY — Joseph E. Stolfi, M.D., 131 South Anton, Montgomery, Alabama 36105. Louisiana State 1969. Board eligible. Group, partnership, or solo. Available August 1975.

OBSTETRICS AND GYNECOLOGY — Calvin E. Chiang, M.D., 1770 Grand Concourse, Bronx, New York 10457. Taiwan 1969. Board eligible. Group or partnership. Available 1975.

Neung S. Lee, M.D., 8 Park Street, Demarest 07627. Seoul National Univ. 1963. Board certified. Solo, partnership, or group. Available July 1975.

Chang Chin-Jugi, M.D., 1770 Grand Concourse, Bronx, New York 10457. China Medical College, 1968. Board eligible. Solo, partnership, group, or hospital. Available July 1975.

OTOLARYNGOLOGY — Malayandi Raja, M.D., 86-16 60th Avenue, Apt. 6-L, Elmhurst, New York 11373. Madras (India) 1957. Board certified. Solo. Available.

PATHOLOGY — Josefino C. Aguilar, M.D., 1709 McMillan Rd., Pittsburgh 15241. Santo Tomas 1967. Board eligible — AP, CP, FP. Group, partnership, or solo with hospital or research and teaching. Available July 1976.

A. Tamara, M.D., 1738 Aberdeen Rd., Baltimore 21234. Xaveriana (Bogota, Colombia) 1969. Board certified — CP and AP. Group or partnership. Available July 1975.

Ambika Nanu, M.D., 909-3 Woodacres Apt., Claymont, Delaware 19703. India Institute (New Delhi) 1967. Group or hospital. Available February 1975.

Edward B. Sussman, M.D., USAF Regional Hosp., Sheppard AFB, Texas 76311. North Carolina 1970. Board certified — AP. Primary interest is surgical pathology. Group, partnership, solo. Available July 1976.

PEDIATRICS — V. Titus John, M.D., 225 Laird Ave., SE, Warren, Ohio 44482. Madras (India) 1963. Board eligible. Group. Available July 1975.

Hassan Bozorgnia, M.D., 12 Fulton St., Pontiac, Michigan 48053. Tehran 1968. Partnership or hospital. Available July 1975.

Fang Yuang Hsu, M.D., 88-25 153rd Street, Jamaica, New York 11432. Taiwan University 1967. Also interested in general practice. Group, associate, house physician, or emergency room. Available June 1, 1975.

PSYCHIATRY — Daniel M. Greenwald, M.D., 531 Gunderson St., Oak Park, Illinois 60304. Hahnemann 1968. Academic or full or part-time institutional. Available July 1975.

RADIOLOGY — Ramesh D. Doshi, M.D., 10 Copeland St., Apt. #305, Quincy, Massachusetts 02169. M.P. Shah Medical College (India) 1966. Associate, group, or hospital. Available July 1, 1975.

SURGERY — Steven Kahn, M.D., 9634 Basket Ring Road, Columbia, Maryland 21044. New York Medical 1967. Subspecialty, vascular surgery. Board eligible. Group or partnership, solo, academic. Available July 1975.

Bipin N. Doshi, M.D., 4249 Hickory Lane, Cleveland, Ohio 44128. M.S. University (Baroda, India) 1968. Board eligible. Group, partnership, or solo. Available. (216-751-7819)

Henry S. Partridge, M.D., 30 Borghlum Rd., Manhasset, New York 11030. Georgetown 1968. Board eligible. Group, partnership, hospital, solo. Available July 1975.

Shuban K. Moza, M.D., 1819 Williamsbridge Rd., Apt. 2-A, Bronx, New York 10461. Srinagar (India) 1965. Board eligible. Group or partnership. Available July 1975.

Chi-Chuen Su, M.D., 603-A Roxborough Ave., Philadelphia 19128. NTU (Taiwan) 1967. Subspecialty, vascular and cardiothoracic surgery. Board certified. Group or partnership. Available July 1975.

Rodrigo V. Blanco, M.D., 250 E. 87th St., Apt. 15-B, New York 10028. Santiago Univ. (Spain) 1953. Group or partnership. Available July 1975.

Alberto Abaunza, M.D., 31-21 41st St., Long Island City, New York 11103. Madrid 1957. Board eligible. Group or partnership. Available July 1975.

Wyman W. Chu, M.D., 825 Bayshore Dr., 1204, Pensacola, Florida 32507. SUNY, Downstate 1967. Board eligible. Partnership, group, or solo. Available July 1975.

Il Bong Kim, M.D., 3414 West Waukegan Road, McHenry, Illinois 60050. Catholic Medical 1967. Board eligible. Solo, group, partnership, will include general practice. Available July 1975.

Tik Tjong Liem, M.D., 2931 Northview Blvd., Youngstown, Ohio 44504. National (Taiwan) 1968. Board eligible. Group or solo. Available July 1975.

UROLOGY — Steven W. Berliner, M.D., 11 Hillside Terrace, Livingston 07039. Univ. of Bologna, (Italy) 1969. Board eligible. Group or partnership. Available immediately.

Ramses I. Faragalla, M.D., 6517 Landover Road, Cheverly, Maryland 20785. Alexandria (Egypt) 1959. Board eligible. Group, partnership, solo. Available July 1975.



# NO IRON IS BIOAVAILABLE.

Unless the kid takes it.  
Frivolous observation?  
Hardly. The medical literature  
is now replete with data  
showing that 25 to 50% are  
drug defaulters.\* Adults. Kids.

Everything is for naught if  
the kid's taste buds reject  
the product.

That's what's nice about  
INCREMIN with Iron Syrup.  
It really tastes okay.

Now, to convince yourself  
that INCREMIN with  
Iron Syrup makes iron  
"bioavailable" by effec-  
tively delivering it to the  
patient, request starter  
samples. Also available:  
Print of this original  
network (without any  
text) suitable for framing.

## INCREMIN<sup>®</sup> with IRON Syrup

Dietary Supplement

Each teaspoonful (5 cc) contains:	
Elemental Iron (as Ferric Pyrophosphate)	30 mg
L-Lysine HCl	300 mg
Thiamine HCl (B <sub>1</sub> )	10 mg
Pyridoxine HCl (B <sub>6</sub> )	5 mg
Vitamin B <sub>12</sub>	25 mcgm
Sorbitol	3.5 Gm
Alcohol	0.75%

DOSAGE: Prevention of iron-deficiency anemia—Children and Adults—1 tsp. (5 cc) daily. Treatment of iron-deficiency anemia—Children: 1 tsp. t.i.d.; Adults: 1 tsp. q.i.d.

SUPPLY: Bottles of 4 fl. oz. and 16 fl. oz.



LEDERLE LABORATORIES  
A Division of American Cyanamid Company  
Pearl River, New York 10965

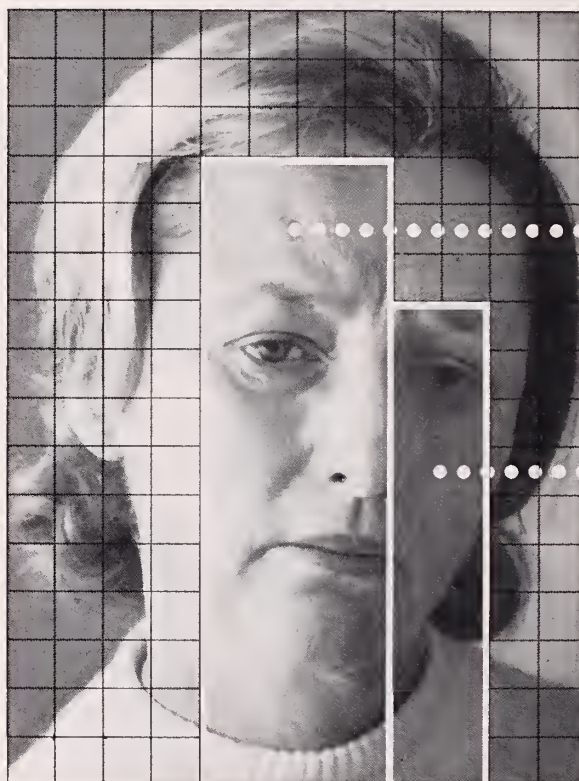
### FREE SAMPLE COUPON

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Pearl River, N.Y. 10965

- ☐ Please have your representative deliver samples of INCREMIN with Iron Syrup.
- ☐ Please send print suitable for framing.
- ☐ Please send bibliography on patient compliance problems.

Zip

# Both after



Predominant  
psychoneurotic  
anxiety

Associated  
depressive  
symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (seen in those with barbiturates and alcohol) occurred following abrupt discontinuation (convulsions, tremor, abdominal cramps, vomiting and sweating) in addiction-prone individuals under



# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem sounds like depression. It is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) provides relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved. There are other advantages in using Valium for the treatment of psychoneurotic anxiety with secondary depressive symptoms: the therapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



## Valium<sup>®</sup> (diazepam) 2-mg, 5-mg, 10-mg tablets

in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

ance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

**Interactions:** If combined with other psychotropics or anticonvulsants, consider the pharmacology of agents employed. Drugs such as phenothiazines, sedatives, barbiturates, MAO inhibitors or antidepressants may potentiate Valium. Usual precautions indicated in severely depressed, or with latent suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories  
Division of Hoffmann-La Roche Inc.  
Nutley, New Jersey 07110



## Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center of the New Jersey Regional Medical Program and the Brookdale Inter-regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, conjointly compile the information contained in this column each month. The New Jersey component is located at the Valley Hospital in Ridgewood. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Following are questions and answers handled by the Center recently.

1. Please provide me with data concerning possible vestibular side effects associated with minocycline therapy.

Minocycline (Minocin<sup>®</sup>, Vectrin<sup>®</sup>), a semi-synthetic derivative of tetracycline, is closely related in action and uses to other antibiotics of the tetracycline group. A complex of vestibular side effects arising shortly after initiation of therapy with minocycline has been observed by several investigators.

Williams and his associates<sup>1</sup> recently studied minocycline in the treatment of women with asymptomatic bacteriuria or for prophylaxis of meningococcal diseases. The data revealed that 17 (89 percent) of 19 persons taking minocycline developed nausea, vomiting, weakness, ataxia, vertigo or dizziness 24 to 48 hours after the initiation of therapy. These symptoms usually occurred in combination, were often acute and severe, and disappeared shortly after therapy was discontinued. The side effects were not elicited

when tetracycline was administered to some of the same patients, nor was there a history of similar symptoms among household or work contacts.

Guttler and Beaty<sup>2</sup> treated the 14,800 military recruits with minocycline for prophylaxis of meningitis during the outbreak of meningococcal disease, in a dosage of 100 mg every 12 hours for five days. About 7 percent of the recruits had minor reactions consisting of dizziness, nausea, or headache; however, these symptoms were not sufficiently bothersome to require interruption of treatment.

Kaplan<sup>3</sup> treated 25 healthy hospital staff exposed to two patients with meningococcal disease with minocycline — 200 mg initially, followed by 100 mg twice a day for five days. The treated group and a non-treated control group working on the same ward were questioned about symptoms. Twenty-four out of 25 treated persons (96 percent) had at least one vestibular symptom; 22 of 25 (88 percent) experienced dizziness, 18 of 25 (72 percent) ataxia, 11 of 25 (44 percent) nausea, 76 percent of symptomatic persons had their onset in the first 48 hours of therapy. Twelve percent of the treated group discontinued the drug because of intolerance; those persons who continued the medication exhibited anxiety about the risk of contracting the disease. No one in the non-treated control group had vestibular symptoms. Two persons, a nurse and a physician, were unable to work because of severe vertigo, nausea, and vomiting. In one case the symptoms were so severe that a diagnosis of pseudotumor cerebri was temporarily considered. In all cases the symptoms ceased within 48 hours after the drug was discontinued.

Devine, *et al.*,<sup>4</sup> conducted two studies regarding the effect of minocycline on meningococcal nasopharyngeal carrier state in naval personnel. During the first study in which a total oral dose of 1.1 gm of minocycline was administered to each of 64 men over a five-day period (200 mg loading dose followed by 100 mg every 12 hours), no unusual symptoms were reported by the participants. In the second study, a total oral dose of 800 mg was given during a period of two days (200 mg every 12 hours for four doses). Nineteen of 53 men (36 percent) receiving minocycline, according to this regimen, experienced one or more symptoms which included nausea, anorexia, abdominal cramps and dizziness. Volunteers stated that dizziness was experienced particularly on assuming an erect posture. Among those who experienced side reactions, dizziness was by far the most common complaint. Onset of reactions occurred most frequently on the second day of treatment. All individuals were asymptomatic following discontinuation of the drug.

Nicol and Oriel<sup>5</sup> treated 120 men with non-specific genital infection with minocycline, 100 mg twice daily for three weeks. Vestibular side effects occurred in four men (3 percent), all within the first week of treatment. Of 105 women treated with the same dose of minocycline, 15 (14 percent) developed side effects within the first week of therapy. The authors conclude that the incidence of vestibular side effects between men and women is too great to be accounted for by differences in body weight. Rather, these side effects, like those of some other drug, are more common in women than in men.

In conclusion, these data suggest that minocycline has a propensity for producing reversible vestibular side effects.

### References

<sup>1</sup>Williams D N *et al*: Minocycline: possible vestibular side effects. *Lancet* 2:744-746, (Sept. 28) 1974.

<sup>2</sup>Guttler R B and Beaty H N: Minocycline in the chemoprophylaxis of meningococcal disease. *Antimicrob Agents Chemother* 1:397-402, (May) 1972.

Anon.: Vestibular reactions to minocycline — follow-up. *Morbidity and Mortality Weekly Report* 24: 55-56, (February 8) 1975.

Devine L F, et al.: The effect of minocycline on meningococcal nasopharyngeal carrier state in naval personnel. *Am J Epidemiol* 93:337-345, 1971

Nicol C S and Oriel J D: Minocycline: possible vestibular side effects. *Lancet* 2:1260, (November 23) 1974.

2. Please supply information concerning the use of psoralens in the treatment of psoriasis.

Methoxsalen (8-methoxypsoralen), a photoactive psoralen compound, is commercially available as 10 mg capsules and as a 1.0 percent lotion (Oxsoralen®). The drug is indicated to enhance pigmentation, to protect against sunburn, and to repigment vitiliginous areas. It has been suggested that methoxsalen administered either systemically or topically in combination with long wave ultraviolet radiation may offer a new and more highly effective therapeutic modality in psoriasis since the photo excited molecule leads to inhibition of DNA synthesis which in turn inhibits epidermal mitosis and proliferation.

Weber<sup>1</sup> treated 74 patients with varying forms of psoriasis with 0.15% solution of methoxsalen topically and black light (the maximum wave length is 360 nm compared to conventional ultraviolet therapy which is 270 nm to 320 nm). The solution was brushed on the psoriasis lesions and after an interval of one hour the phototherapy with black light was given. In 34 patients the skin lesions healed, and in 23 patients they improved considerably. Eleven patients showed only a moderate regression of the lesions. In six patients treatment was discontinued for various reasons during the first phase. The relapses were not resistant to further similar treatment.

Parrish, et al.,<sup>2</sup> treated 21 hospitalized patients having generalized psoriasis covering at least 50 percent of the body with oral methoxsalen (20 to 50 mg according to the patient's weight) followed two hours later by exposure to a high intensity long wave ultraviolet light (320 nm to 390 nm). Twelve to 18 treatments resulted in a complete and rapid clearing of generalized psoriatic lesions in all patients. When clearing of psoriasis was achieved, patients were discharged to receive the same treatment on an outpatient basis, three times weekly at first, then gradually reduced to a maintenance level of once weekly. The patients were followed up to seven months. In a paired comparison study of 16 patients, methoxsalen followed by long wave ultraviolet light was more effective than conventional ultraviolet therapy. The authors believed that their results were preliminary and a longer follow-up period was necessary before their method could be accepted as a treatment for generalized psoriasis.

Oral methoxsalen may produce minor side effects and local application may produce severe edema, erythema, blistering and pain when the skin areas are subsequently exposed to ultraviolet light.<sup>3</sup> Ocular damage and epidermal tumors associated with psoralen photosensitization have been reported in animal studies.<sup>4</sup>

The systemic use of methoxsalen followed by long wave ultraviolet light may prove to be a promising treatment for psoriasis.

## References

<sup>1</sup> Weber G: Combined 8-methoxypsoralen and black light therapy of psoriasis. *Br J Dermatol* 90:317-323, 1974

<sup>2</sup> Parrish J A, et al: Photochemotherapy of psoriasis with oral methoxsalen and longwave ultraviolet light. *N Engl J Med* 291:1207-1210, (December 5) 1974

<sup>3</sup> Meyler L and Herxheimer A: Side effects of drugs, VII. *Excerpta Medica*, The Netherlands, 1972, pp 265-266

<sup>4</sup> Harber L C: Photochemotherapy of psoriasis. *N Engl J Med* 291:1251-1252 (December 5) 1974

3. Where can I obtain D-xylose for use in the D-xylose absorption test?

One of the tests useful in the diagnosis of malabsorption disorders affecting the mucosa of the proximal small intestines, such as nontropical and tropical sprue, is the D-xylose test.<sup>1</sup> In the most commonly employed form of this test, the patient is to ingest 25 gm. of D-xylose.

A number of chemical supply companies market D-xylose in 25 gm. bottles, a convenient amount for performing the test. However, they are clearly labelled "For laboratory and manufacturing use only, not for drug, food, or household use." In addition, D-xylose is presently classified by the Food and Drug Administration as an investigational drug for humans, and as such its use is strictly controlled by regulations pertaining to same.<sup>2</sup> Considering the product labelling and its FDA status, the use of present sources of D-xylose may not be in the best interests of the patient and further could leave the laboratory, hospital, or physician who administers it liable in a legal action.

Recent contact with the FDA revealed that D-xylose will be released onto the market for general use within the near future by the Pfanstiehl Labs. For further information pertaining to same, contact either Mr. John Singleton, Food & Drug Administration, Division of Cardio-Renal Drug Products, Room 16B-20, HFD 110, Rockville, Maryland 20852 or Pfanstiehl Laboratories Inc., 1219 Glenrock Avenue, Waukegan, Illinois 60085.

## References

<sup>1</sup> Harrison T R, et al: *Principles of Internal Medicine*. New York, McGraw-Hill, 1974, p. 1462.

<sup>2</sup> Based on personal correspondence from E. Devauhn Belton, M.D., Food and Drug Administration.

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# ANNOUNCEMENTS

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## CME Programs at Bridgeton Hospital

The Bridgeton Hospital announces the following continuing medical education courses to be held at the hospital at 6:30 p.m. on the Wednesdays and Thursdays indicated:

April 10	Arteriography — Acute Vascular Disease
April 30	Diagnosis and Treatment of Masked Depression
May 14	Sexual Disorders in Office Practice
Sept. 11	Endoscopy and Acute Problems in Gastroenterology
Sept. 24	Congestive Heart Failure and Hypertension
Oct. 9	Acute and Chronic Brain Disease
Oct. 29	Acute Psychiatric Problems
Nov. 13	Techniques and Capabilities of Radiology Diagnosis
Nov. 26	Pelvic Disease — Office Gynecology
Dec. 11	Venereal Diseases

For additional information, please communicate with Sherman Garrison, M.D., Director of Medical Education, The Bridgeton Hospital, Bridgeton 08302.

## Neurology-Neurosurgery Conference

The Pascack Valley Hospital in Westwood announces the following in its series on joint conferences in neurology and neurosurgery.

April 14	Epilepticus
May 12	Severe head injury — neurosurgical viewpoint
June 9	Severe head injury — medical viewpoint

Programs are held on the second Tuesday of each month from 11:30 a.m. to 12:30 p.m. and are fully accredited for category I of the AMA Physicians' Recognition Award. For further information, please write to the hospital or to Andrew L. Bender, M.D., 400 Old Hook Road, Westwood 07675.

## Current Topics in Psychiatry

The Fair Oaks Hospital in Summit announces the following programs in the 1974-1975 series on current topics in psychiatry. Dates and topics of subsequent sessions will be announced in future issues of *The Journal*.

Apr. 16	Applied Electroencephalography
Apr. 30	Drug Addiction
May 14	Dynamics of Marital Interaction
May 28	Therapeutic Intervention in Marital Maladjustment

Sessions are held from 3 to 4:30 p.m. in the Conference Room at the Hospital (19 Prospect Street). Granville L. Jones, M.D., Director of Research and Education at Fair Oaks, will be moderator and further information is available by writing directly to him.

The programs are co-sponsored by the Academy of Medicine and are accredited for Category I of the AMA Physician's Recognition Award.

## Chest Case Conference

On May 1, from 4 to 6 p.m. at the Hunterdon Medical Center, Route 31, Flemington, the Delaware-Raritan Lung Association is sponsoring the Central New Jersey Chest Care Conference. Co-sponsor is the New Jersey Thoracic Society. Case presentations will be offered by Theodore H. Weinstein, M.D. The conference has been approved for two hours of category I AMA-CME accreditation. For additional information, please write to Linda Hummel, Program Assistant, Delaware-Raritan Lung Association, 29 Emmons Drive, Princeton, New Jersey 08540.

## Course on Handling the Brain-Damaged

New York University Medical Center's Institute of Rehabilitation Medicine will present a course on new methods of clinical management, assessment, and principles for the treatment of brain-damaged persons from May 12 to 14, at the Institute, 400 East 34th Street, New York. Entitled "Cognitive and Perceptual Remediation in Brain-Damaged Persons," the course emphasizes the treatment ranging from young adults through geriatric patients. Tuition is \$165 and requests for enrollment should be directed to The Institute of Rehabilitation Medicine, NYU Medical Center, 400 East 34th Street, New York.

## Allergy and Immunology for the Practicing Physician

A graduate course in allergy and immunology for the practicing physicians will be presented by the Department of Pediatrics and Child Health of Howard University College of Medicine, Washington, D.C., from June 19 to 21, 1975. Basic knowledge and recent advances in allergy and clinical immunology will be presented. Discussion will cover allergic disorders seen in private practice and the difficult-to-manage conditions. Tuition is \$70. For registration and additional information, please write to M. A. Abrishami, M.D., Director, Pediatric Allergy Program, Department of Pediatrics, Howard University, Washington, D.C. 20060.

## Seminar on Progress in Maternal and Fetal Medicine

The Departments of Obstetrics and Gynecology and Pediatrics of the New Jersey Medical School, CMDNJ, under the sponsorship of Roche Medical Electronics Company, will hold a graduate course — the First Memorial Ignatz Semmelweis Seminar — in various aspects of perinatology from September 19 to 21, 1975 at the Playboy Club Hotel, Great Gorge, New Jersey. A separate program will be presented at

the same time for obstetrical nurses. For additional information, please write to Dr. Leslie Iffy, Program Director, Department of Obstetrics and Gynecology, CMDNJ, Martland Hospital Unit, 65 Bergen Street, Newark 07107.

## Retraining Program for Inactive Physicians

The Medical College of Pennsylvania is accepting applications for the Spring 1975 session of the Retraining Program for Inactive Physicians to be held from May 5 through June 20, 1975. The program will be held twice yearly for at least the next two years. Application deadline for the Fall 1975 session is September 1, 1975. The program provides clinical training for inactive physicians who wish to re-enter clinical medicine by offering review of physical diagnostic skills, experience in clinical rotations, and a lecture series on general medicine, pathophysiology, diagnosis, and patient management. To date, the program has retrained over seventy physicians; almost all have returned to active medicine, either as residents or practitioners. For an application and additional information, write to: Retraining Program, Center for Women in Medicine, The Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, Pa. 19129.

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# MEETINGS OF MEDICAL INTEREST

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This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

Apr.

### 11 Antihypertensive Agents

2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)

### 12 Orthopedic Surgery

19 8:30 a.m. — Martland Hospital, Newark  
26 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)

### 12 Basic Science for Surgeons

19 10 a.m.-12 noon — Martland Hospital, Newark  
26 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)

### 14 Distinguished Lectures in Surgery

21 4-5 p.m. — Martland Hospital, Newark  
28 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)

### 14 Neurology and Neurosurgery Conferences

11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

### 15 Newer Concepts in Hepatitis Management

12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)

- 15 Endotoxic Shock**  
7 p.m. — Point Pleasant Hospital  
(Sponsored by Academy of Medicine)
- 15 Cerebrovascular Disease**  
11:30 a.m. — St. Mary's Hospital, Orange  
(Sponsored by Academy of Medicine)
- 16 Applied Electroencephalography**  
3-4:30 p.m. — Fair Oaks Hospital, Summit  
(Sponsored by Fair Oaks Hospital and Academy of Medicine)
- 16 Tuberculosis Before and After Chemotherapy**  
2 p.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ — Martland Hospital Unit)
- 16 Infertility**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 16 Hepatitis Management**  
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights  
(Sponsored by Academy of Medicine)
- 16 Thanatology**  
1 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 16 Tuberculosis Before and After Chemotherapy**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 16 Thyroid Gland and Thyroid Disorders**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital and AAFP)
- 16 Functional Diseases**
- 23 Interaction of Drugs Used in Cardiac Disease**
- 30 Stroke Rehabilitation**  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
(Sponsored by Middlesex General Hospital and Academy of Medicine)
- Clinical Endocrinology**
- 16** 3:30 p.m. — Martland Hospital, Newark Beth
- 23** Israel, and VA Hospital, East Orange (varies)
- 30** (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 16 Clinical Pathology Conference**
- 23 Rheumatoid Arthritis**
- 30 Medical-Surgical-Cardiology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 16 Distinguished Lectures in Neuroscience**
- 23** 10:30-11:30 a.m. — VA Hospital, East Orange
- 30** (Sponsored by CMDNJ, New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)
- 17 Basic Sciences and Clinical Application**
- 24** 3:30-4:30 p.m. — Burlington County Memorial Hospital, Mount Holly  
(Sponsored by Burlington County Memorial Hospital and NJAFP)
- 17 Clinical Nephrology**
- 24** 4-5 p.m. — Martland Hospital Unit, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 18 Seminar**
- 25** 1:30-5 p.m. — Trenton Psychiatric Hospital  
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)
- 18 Care of the Critically Ill Patient — Cardiac Arrests**  
12 noon — Freehold Area Hospital, Freehold  
(Sponsored by Academy of Medicine)
- 19 Annual Meeting, New Jersey Obstetrical and Gynecological Society**
- 20** Cherry Hill Inn, Cherry Hill
- 21 Arteriography**  
11:30 a.m. — Helene Fuld Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 22 Neurological Changes During Senility — 4-5 p.m.**
- 22 The Aging Eye — 5-6 p.m.**
- 29 Panel Presentation — Aging, Dying, Death — 4-6 p.m.**  
Martland Hospital, Newark  
(Sponsored by Academy of Medicine)
- 22 Hepatitis Management**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 22 Regional Chest Case Conferences**  
7:30 p.m. — Christ Hospital, Jersey City  
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)
- 22 Prostatectomy and Prostate Surgery**  
7 p.m. — Englewood Men's Club, Englewood  
(Sponsored by Englewood Hospital, Englewood Surgical Associates, and Academy of Medicine)
- 22 Adolescents at Risk**  
9 p.m. — Marriott Motor Inn, Saddle Brook  
(Sponsored by N.J. Council, American Academy Child Psychiatry and Academy of Medicine)
- 23 Viral Hepatitis (State of the Art Conference in Nephrology)**  
1-4 p.m. — Jersey City Medical Center, Jersey City  
(Sponsored by Nephrology Society of New Jersey and Academy of Medicine)
- 23 Oral Manifestations of Systemic Disease**  
9 a.m.-4 p.m. — VA Hospital, East Orange  
(Sponsored by Academy of Medicine)
- 23 1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospitals, and Academy of Medicine)
- 24 Workshop on Clarification of Values by Health Care Teams**  
9 a.m.-4 p.m. — Rutgers Medical School, CMDNJ, Piscataway  
(Sponsored by CMDNJ)



- 24 Pancreatic Scanning**  
7:15-10:15 p.m. — Hospital Center at Orange  
(Sponsored by Radiology Society of New Jersey and Academy of Medicine)
- 25 Medical Care in the Emergency Room**  
12:15 p.m. — Zurrugg Memorial Hospital, Riverside  
(Sponsored by Academy of Medicine)
- 25 Hepatitis Management**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 26 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- 26 Epidural Anesthesiology in Surgery and Obstetrics**  
9 a.m.-1 p.m. — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
- 30 Meningitis**  
12 noon — St. Francis Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 30 Family Medicine**  
9 a.m.-5 p.m. — Rutgers Medical School, Piscataway  
(Sponsored by CMDNJ)
- 30 Advances in Use of Antibiotics**  
9 a.m. — Barnert Memorial Hospital, Paterson  
(Sponsored by Barnert Memorial Hospital)
- May**
- 1 Clinical Nephrology**  
8 4-5 p.m. — Martland Hospital Unit, Newark  
15 (Sponsored by CMDNJ, New Jersey Medical  
22 School, and Academy of Medicine)
- 29**
- 1 Basic Sciences and Clinical Applications**  
8 3:30-4:30 p.m. — Burlington County Memorial  
Hospital  
15 (Sponsored by Burlington County Memorial  
22 Hospital and Academy of Medicine)
- 3 Orthopedic Surgery**  
10 8:30 a.m. — Martland Hospital, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical  
24 School, and Academy of Medicine)
- 3 Basic Science for Surgeons**  
10 10 a.m.-12 noon — Martland Hospital, Newark  
17 (Sponsored by CMDNJ, New Jersey Medical  
24 School, and Academy of Medicine)
- 31**
- 5 Johnson and Johnson Professorship in Pediatrics**  
9 8 a.m.-5 p.m. each day — Somerset Hospital, Somerville  
(Sponsored by Somerset Hospital and Academy of Medicine)
- 5 Distinguished Lectures in Surgery**  
12 4-5 p.m. — Martland Hospital, Newark  
19 (Sponsored by CMDNJ, New Jersey Medical  
School, and Academy of Medicine)
- 5 Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital,  
American Cancer Society, and Academy of Medicine)
- 7 Mini-dose Heparin in Surgical Patients**
- 14 New Diagnostic Techniques in Gastroenterology**
- 21 Aggressive Treatment of Stroke**
- 28 Gerontology**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 7 Clinical Endocrinology**  
6 p.m. — Holiday Inn, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 7 Fluid and Electrolyte Imbalance**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 7 Distinguished Lectures in Neuroscience**
- 14 10:30-11:30 a.m. — VA Hospital, East Orange**
- 21 (Sponsored by CMDNJ, New Jersey Medical**
- 28 School, East Orange VA Hospital, and Academy of Medicine)**
- 7 Clinical Interpretation of Diagnostic Laboratory**
- 14 Tests**
- 21 3:30-5:30 p.m. — Rutgers Medical School, Pis-**
- 28 cataway**  
(Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)
- 7 Clinical Endocrinology**
- 14 3:30 p.m. — Martland Hospital, Newark Beth**
- 21 Israel Medical Center, and VA Hospital, East**
- 28 Orange (varies)**  
(Sponsored by CMDNJ, New Jersey Medical School,  
and Academy of Medicine)
- 7 Minor Surgery in Office Practice**
- 14 Learning Disabilities**
- 21 Nutrition of the Aged**
- 28 Emotional Aspects of Common Medical Problems**  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
(Sponsored by Middlesex General Hospital)
- 12 Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)
- 13 Hepatitis Management**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 13 Fluid and Electrolyte Imbalance**  
12 noon — Hospital Center at Orange  
(Sponsored by Academy of Medicine)
- 13 Proper Use of Laparoscopy**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey City  
(Sponsored by Academy of Medicine)
- 13 Proper Use of Blood Gases**

- 10:30 a.m. — North Hudson Hospital, Weehawken  
(Sponsored by Academy of Medicine)
- 14 Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)
- 14 Respiratory Failure**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 14 1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospitals, and Academy of Medicine)
- 14 Respiratory Failure**  
2 p.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ — Martland Hospital Unit)
- 14 Dynamics of Marital Interaction**
- 28 Therapeutic Intervention in Marital Maladjustment**  
3-4:30 p.m. — Fair Oaks Hospital, Summit  
(Sponsored by Fair Oaks Hospital and Academy of Medicine)
- 16 Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 19 Proper Use of Blood Gases**  
8 p.m. — Irvington General Hospital, Irvington  
(Sponsored by Academy of Medicine)
- 21 Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)
- 22 Regional Chest Case Conferences**  
7:30 p.m. — The Medical Center at Princeton  
(Sponsored by New Jersey Thoracic Society, and Academy of Medicine)
- 23 Continuing Education Programs**  
6:30 p.m. — Bridgeton Hospital, Bridgeton  
(Sponsored by Bridgeton Hospital and Academy of Medicine)
- 23 Cardiology**  
8:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen County Heart Association and Lederle Laboratories)
- 23 Proper Use of Blood Gases**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)
- 23 Ischemic Heart Disease**  
8:30 p.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 27 Psychiatry**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 28 Annual Awards Dinner**  
6 p.m. — Chanticleer, Millburn  
(Sponsored by Academy of Medicine)
- 28 Pulmonary Circulation**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 31 Nephro-Pathology Conference**  
9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)
- May 31-June 3**  
**Annual Meeting, MSNJ**  
Garden State Convention Center, Cherry Hill
- June**
- 1 Family Practice Sections**
- 2 Cherry Hill Inn, Cherry Hill**  
(Sponsored by MSNJ, and New Jersey Chapter, Academy of Family Physicians)
- 3 Tumor Clinical Conferences**  
11 a.m. — Morristown Memorial Hospital  
(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)
- 4 Clinical Endocrinology**  
3:30 p.m. — Martland Hospital, Newark Beth Israel Medical Center, and VA Hospital, East Orange (varies)  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 4 1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
(Sponsored by St. Clare's, Dover General, and Riverside Hospital and Academy of Medicine)
- 4 Gastrointestinal Cancer**
- 11 House Staff Symposium**
- 18 Clinical Pathology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 5 Thanatology**  
1 p.m. — Ancora Psychiatric Hospital, Trenton  
(Sponsored by Academy of Medicine)
- 7 Orthopedic Surgery**  
8:30 a.m. — Martland Hospital, Newark  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 7 Basic Science for Surgeons**
- 14 10 a.m.-12 noon — Martland Hospital, Newark**  
(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 21 School, and Academy of Medicine)**
- 9 Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
(Sponsored by Pascack Valley Hospital and Academy of Medicine)
- 10 Difficult Diabetic Patient**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)

11 **Angina Pectoris**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital and Academy of Medicine)

11 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)

11 **Behavioral Therapy**

25 **Behavioral Therapy**  
3-4:30 p.m. — Fair Oaks Hospital, Summit  
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

13 **Antihypertensive Agents**

2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)

18 **Joint Monthly Sessions of Clinical Interest**

7-9 p.m. — VA Hospital, East Orange

(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)

24 **Hepatitis, Acute and Chronic**

11 a.m. — Perth Amboy General Hospital, Perth Amboy  
(Sponsored by Academy of Medicine)

24 **Thyroid Diseases**

8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)

25 **Air Pollution**

9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)

27 **Endotoxic Shock**

9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)

28 **Nephro-Pathology Conference**

9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)

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## LETTERS TO THE JOURNAL

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### Re-examination — Pro and Con

February 20, 1975

Dear Doctor Krosnick:

I read with interest the recent editorial (*JMSNJ* 72:101, February 1975) by Dr. Arthur Bernstein concerning recertification. Since I did take the recertification examination in Internal Medicine (and successfully passed it), I think I can add something to this discussion.

The whole process of examination by tests dates back to our kindergarten days, and we have always accepted these, and we accept these for our children. Whether or not the type of recertification examination that is given is appropriate or not is something that I cannot answer. Certainly the oral type of examination that many of us took for our initial certification

was judged to be too subjective by the Board and has since been discontinued. The multiple answer type that we just had is perhaps somewhat too restrictive and does not really test our judgment and knowledge of a particular situation. Maybe the "rub out" type of examination used by the national Board Examiners would be more appropriate.

The point is, however, that recertification by examination is probably here to stay and will be adopted by other boards in the future. Again, the question is why should we, as physicians, be forced to recertify when other professions such as accounting, law, dentistry, and so on, do not. I think it is very simple. The reason is that we are *physicians*, and we should take the lead in establishing high standards for our profession, both academically and morally.

Getting back to the examination itself, the material supplied by the American Board in the syllabus, as well as the references, at least defined the area which they felt was important. The examination was difficult, at least for me; however, anyone who gave it an honest effort with studying and keeping up with the current literature would have no problem.



There is no question in my mind that given the option of recertifying by examination I would do it again, since the information that I learned was pertinent and important.

(signed) B. D. Hurowitz, M.D.

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February 20, 1975

Dear Doctor Krosnick:

My congratulations to Dr. Arthur Bernstein on his editorial "Re-examination — For What Purpose?" (*JMSNJ* 72:101, February 1975). Our profession requires the sensible approach he advocates.

(signed) N. Asbell, M.D.

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February 23, 1975

Dear Doctor Krosnick:

I want to compliment you and Dr. Arthur Bernstein on your two fine editorials in this month's issue (February 1975, Vol. 72, No. 2).

I am sure that the great majority of the profession concur and appreciate the wisdom and common sense embodied therein.

(signed) W. J. Hallock, M.D.

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February 24, 1975

Dear Doctor Krosnick:

I read Dr. Bernstein's editorial in the February 1975 *Journal*. I think Dr. Bernstein is missing or distorting the point. What I hear is relicensure and recertification — not re-examination. How relicensure and recertification will be achieved is not yet decided in most cases. Sometimes this may consist of evidence of continuing education, sometimes by assessment of performance

(however inaccurate or subjective that may be), and sometimes by a combination of the two with or without examination. As a member of the American Board of Preventive Medicine, I know that that Board is now struggling with trying to decide how best and how most equitably to recertify. There is almost unanimous agreement that re-examination alone will probably not be it. Through lack of understanding, Dr. Bernstein seems to be trying to stir up his colleagues against the concept of relicensure and recertification, which basically is a good idea to increase the quality of medical care, to which no self-respecting physician can be opposed. Let us be sure we keep everything in proper perspective.

(signed) Robert E. Eckardt, M.D.

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#### Re-examination — The Wrong Approach

February 25, 1975

Dear Dr. Krosnick:

I wholeheartedly support Dr. Bernstein's stand against recertification by examination in his editorial in the February (1975) issue of *The Journal* and have the following further comments to make regarding this extremely important issue.

For years we have gone through grade school, high school, college, medical school, internship, and residency programs. We have taken college boards, medical aptitude tests, state board exams, national board exams, thousands of oral, written and practical exams and specialty board exams. By the time we have weathered the storm, half of our lives has elapsed. We have proved ourselves. We have been examination neurotics for thirty years.

What do we do for the next thirty years? It is true that medical education must continue and the half-life of medical knowledge is 5 to 7 years. However, the correct and logical way of doing this is to take postgraduate courses, attend national meetings, attend conferences and do reading in our special fields of interest. Self-assessment examinations do help to a degree and

can be a useful tool but not as a basis for a recertification examination. The fact that The Medical Society of New Jersey has stipulated that a member must have 150 hours of postgraduate education every three years is a step in the right direction and I believe, the only meaningful and practical way of keeping up the quality of medicine. However, does it make sense for a general internist, who does little endocrinology or hematology, to study the complexities of the adrenogenital syndrome or biochemistry of the thalassemias so that he may answer questions in an examination for recertification? Hasn't he done this dozens of times before? Will doing this again make him a better doctor in his particular setting in his community? I don't think so.

We, as a profession, have done more to "keep up" than most of our colleagues in other

professions. Assessment by performance in a physician's practicing milieu is the only way to judge competence. However, practically speaking, I don't believe that the development of acceptable techniques to do this would significantly improve medical care and probably would be an economic waste.

It is time that we speak up against recertification by examination. I believe that the silent majority, the average practicing physician, is against this approach. If so, I implore you to make your positions known to the people who sit on the governing bodies of our specialty boards and refuse to take these "voluntary" examinations. We have been examination neurotics for half our lives, being examination psychotics for the next half won't make us better doctors.

(signed) Abraham Meltzer, M.D.

### The Old Helping Hand Organization

Many of the younger doctors do not know that there exists in our state a unique helping hand organization, known as the Society for the Relief of the Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance

to the dependents of a deceased member. It lends money without interest to assist widows and orphans of doctors who have known adversity.

For details, write to the Society at P.O. Box 95, Belleville, New Jersey.

## OBITUARIES

### Dr. Anthony B. Cucinella

On February 17, 1975, Anthony B. Cucinella, M.D., a member of our Essex County component, died at his home. Born in Italy in 1894, Dr. Cucinella came to the United States as a child and was educated here, receiving his M.D. degree from Fordham University Medical School in 1919. His practice was limited to in-

dustrial medicine and he was connected with the Lottman Clinic in Newark for 58 years.

### Dr. Ralph T. Mancinelli

At the untimely age of 47, Ralph T. Mancinelli, M.D., a plastic surgeon with offices in Orange, died on February 9, 1975, at Flower Fifth Avenue Hospital in New York. A graduate of Rutgers University, he received his medical degree from the Rome Medical School in 1957 and returned to Newark for internship at St. Michael's Hospital, where he also completed residencies in pathology and surgery. Dr. Man-

cinelli was associated with St. Michael's Hospital in Newark, the East Orange General Hospital, and St. Mary's Hospital in Orange.

#### Dr. Harry B. Mark

Word has just been received of the death on January 26, 1975, of Harry B. Mark, M.D., one of Burlington County's senior practitioners. Born in 1894, Dr. Mark was graduated from the Hahnemann Medical College in 1920 and practiced general medicine and pediatrics in River-  
ton. He had been on the active staff at West Jersey Hospital in Camden and Zurbrugg Memorial Hospital in Riverside, and was a Fellow of the American Academy of Pediatrics.

#### Dr. Nicholas M. Rubino

Nicholas M. Rubino, M.D., a member of our Essex County component, died at his home on February 12, 1975, at the age of 66. Dr. Rubino was graduated from the Johns Hopkins Medical School in 1936 and practiced general medicine in the Newark area all of his professional life. He had been associated with the Clara Maass Memorial Hospital in Belleville and with Columbus Hospital in Newark. He was a member of the Academy of Medicine of New Jersey and had been active in the Johns Hopkins Alumni Club.

#### Dr. Jerome H. Samuel

On February 11, 1975, Jerome H. Samuel, M.D., former chief of the physical therapy department at Beth Israel Medical Center, died at St. Barnabas Medical Center. Dr. Samuel received his doctor of medicine degree from the University of Michigan Medical School in 1925 and pursued a career in physical medicine. In addition to his work at the Beth Israel Medical Center, he had been associated in the same field at Overlook Hospital in Summit and at St. Barnabas in Livingston. He also served as consultant for vocational rehabilitation for the State Commission for the Blind, and was director of physical medicine for the International Ladies Garment Workers Union Health Center in Newark. During World War II he served as Captain in the Army Medical Corps.

#### Dr. Jacob M. Schwarzbam

Notification has been received from Georgia of the death there on May 24, 1974, of Jacob M. Schwarzbam, M.D., who formerly practiced internal medicine in Lakewood. Born in Russia in 1891 and graduated as a doctor of medicine from the University of Kiev (Russia) in 1917, Dr. Schwarzbam came to the United States in the early 1920's and interned at the Metropolitan Hospital in New York. He did graduate work in vascular diseases and electrocardiology and practiced in New York City before coming to Lakewood in 1955 where he maintained offices until retirement to Atlanta, Georgia in 1971.

#### Dr. Herman W. Schweizer

A well-known former anesthetist from Essex County, Herman W. Schweizer, M.D., who retired to Fort Lauderdale, Florida, in 1973, died there on November 7, 1974 after a long illness. Born in 1905 and a graduate of New York Medical College in 1931, Dr. Schweizer had practiced his specialty at the Paterson General Hospital and the East Orange General Hospital. During World War II he served in the medical department of the Army with the rank of Lieutenant Colonel. He was a member of the American Society of Anesthesiologists, the New Jersey State Society of Anesthesiologists, and the Association of Military Surgeons of the United States.

#### Dr. Nicholas F. Scielzo

Nicholas F. Scielzo, M.D., a general practitioner from Paterson, died on February 13, 1975. Born in New York City in 1902, Dr. Scielzo was graduated from the Long Island College of Medicine in 1931. He came to Paterson General Hospital for internship and remained in that city to establish a practice in general medicine with special interest in gynecology. He was on the staff at Paterson General, first as assistant attending in gynecology and more recently as associate in clinical medicine. Dr. Scielzo served during World War II in the medical department of the Army, with the rank of Major.



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# BOOK REVIEWS

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**Dermatology:** Diagnosis and Treatment of Cutaneous Disorders, Third Edition. W. D. Stewart, J. L. Donto, and S. Moddon. St. Louis, Mosby, 1974. Pp. 537. Illustrated. (\$22.50)

This work was first published in 1966 as *Synopsis of Dermatology* and it is difficult to understand why the title has been changed. It is a very short book on so vast a subject.

Much of the material is excellent and helpful, but it suffers both from brevity and at the same time too much detail. For example the therapy for toxic epidermal necrolysis is given as follows: "Rapid initial hospitalization, knowledgeable skilled nursing care and good treatment." This condition which is dealt with in one-third of a column can, in this reviewer's opinion, readily be diagnosed as clinical by any physician, but therapy of complicated cases is likely to require the services of an internist or pediatrician for whom the volume is presumably intended; yet they will find no specific guidance here. The likelihood of a non-dermatologist ever to see, or to recognize this condition is extremely remote.

In the section on lichen sclerosus et atrophicus of the vulva, the authors do not bring out the difference between the "benign" leukoplakia found in this condition and premalignant leukoplakia. Yet dermatologists have spent at least two decades stressing over and over the fact that kraurosis vulva and vulval lichen sclerosus et atrophicus are benign conditions and do not require mutilating surgery.

Many other individual points could be made including, for example, the survival of the quaint and antique term of "Von Giercke's disease" — long since replaced by the more descriptive "glycogen storage disease."

This reviewer believes that there is no longer a place for a book of this type. I don't know to whom I could recommend it; it is too exhaustive for students and too limited for the practitioner. Student books should deal with the broad principles of a specialist subject, concentrating on the pathodynamics of common disease in the hope of fostering a general understanding of the subject. The reference library of the generalist is better served by the larger textbooks on dermatology.

Peter J. Koblenzer, M.D.

**Treatment of Common Acute Poisonings.** H. Motthew, A. A. H. Lawson. New York, Longman (Churchill Livingstone Medical Division), 1974. Pp. 202. (\$8.75)

This is the third edition within eight years of this valuable and practical manual on accidental and self-poisoning by authors who are affiliated with the renowned Poisoning Treatment Centre of the Royal Infirmary of Edinburgh and the associated Scottish Poisons Information Bureau. The book is successfully short, clear, and easy to use partly because of its dogmatic approach, which is fortunately based on good clinical experience. It is intended as a ready reference for emergency situations.

Early chapters cover basic principles of diagnosis and treatment, including medical, psychiatric, and special methods such as forced diuresis, peritoneal dialysis, and hemodialysis. The book deals only with gross overdosage, not with side effects and idiosyncrasies. Following the general principles, there are chapters dealing with the clinical features and treatment of specific groups of toxic agents, such as barbiturates, toxic inhalants, analgesics, various psychotherapeutic and other groups of drugs, domestic and industrial substances such as bleaches and detergents, venomous animals, insecticides, and poisonous plants. Drug addiction is also covered.

Most often, using procedures which help to eliminate the ingested drug from the body and other general supportive and prophylactic measures are all that is required for successful therapy, even in those few instances where specific antidotes are available.

Hyman W. Fisher, M.D.

**Anatomical Correlates of Clinical Electromyography.**

Joseph Goodgold, M.D. Baltimore, Maryland, Williams and Wilkins, 1974. Pp. 153. Illustrated. (\$15)

Here is a clear, concise, practical, clinical approach to neuromuscular anatomy for the electromyographer. It includes photographs demonstrating surface anatomy, side by side with anatomical drawings coupled with frontal and cross-sectional views of the same area. This approach gives the reader a sort of three-dimensional picture of the anatomy involved. In addition, several of the cross-sectional drawings show needle electrodes in place which, together with the brief text describing the needle approach to specific muscles, makes accurate placement of the tip of the electromyography needle seem almost easy.

The 153-page book is divided into sections on the neuromuscular anatomy of (1) head and neck, (2) pectoral girdle and thorax, (3) upper extremity, (4) trunk, pelvic girdle, and perineum, and (5) lower extremity. Anatomical drawings and a brief text on various entrapment neuropathies are included.

It would be a welcome and useful addition to the library of any electromyographer — student and experienced alike.

Fred G. Schwing, M.D.

**Fundamentals of Medical Virology.** J. C. Acton, L. S. Kucero, Q. N. Myrvik, and R. S. Weissner. Philadelphia, Lea and Febiger, 1974. Pp. 330. Illustrated. (\$12.50)

As stated by the authors, the intent of this book is to present the student with the fundamentals of basic and applied virology. This objective is well accomplished by presenting the more basic aspects of virology, i.e., molecular biology, genetics and mechanisms of infection and pathogenicity, in the first part of the book, followed in the second half by a consideration of specific viral syndromes. The latter are presented from the point of view of viral diseases in specific organ systems, rather than by the more traditional presentation of the major groups of viruses and their diseases. This may give the book somewhat more appeal to the pragmatically minded student. The book is quite readable and contains some excellent electron micrographs as well as photographs of clinical material. It can be well recommended to medical students, house staff, and others interested in a well-written introduction to virology and its clinical manifestations.

A. Arthur Gottlieb, M.D.

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\*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D. Double-blind study on the treatment of mentally confused patients. Reprinted from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.



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Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

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**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species).

**Note:** The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in chronic and recurrent urinary tract infections.

**Contraindications:** Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

**Warnings:** Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia in elderly patients on diuretics, primarily thiazides. Sore throat, fever, pallor or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, allergy or bronchial asthma; and in those with glucose-6-phosphate dehydrogenase deficiency, where hemolysis may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

**Adverse Reactions:** All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, prothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus,

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**Dosage:** Not recommended for children under 12.

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**Pregnancy:** Use of any drug in pregnancy or lactation requires weighing potential benefits against hazards.

**PRECAUTIONS:** Total daily dosage above 1 Gm. is not recommended for continued administration. In presence of pain, which may counteract the effect of glutethimide, an analgesic should also be prescribed.

**ADVERSE REACTIONS:** Withdraw glutethimide if a generalized skin rash occurs. Rash usually clears spontaneously within a few days after withdrawal. Occasionally, a purpuric or urticarial rash may occur; exfoliative dermatitis has been reported rarely. With recommended doses, there have been rare reports of nausea, hangover, paradoxical excitation, and blurring of vision. Rarely, acute hypersensitivity reactions, porphyria, and blood dyscrasias (thrombocytopenic purpura, aplastic anemia, leukopenia) have been reported.

**DOSAGE:** To avoid overdosage, individualize dosage. Not recommended for children under 12.

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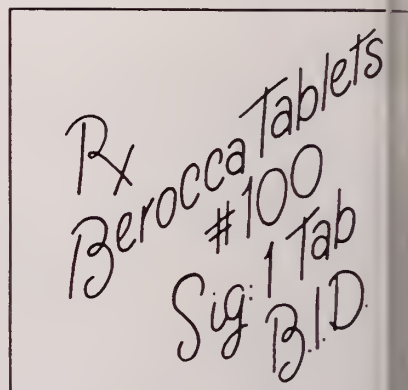
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**MAY 1975**

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# EDITORIALS

## What Foundation?

"I hear you've retired."

"Are you working for the State now?"

"How do you like your government job?"

"Foundation? What Foundation? Where? What for?"

On the way to a specialty society meeting, these are some of the questions asked by colleagues — all from New Jersey — whom I have known for many years. Half of the men on the plane had no accurate ideas about NJFHCE or my part in it. They did not know:

(1) NJFHCE was started in December 1972 by their own medical society (MSNJ).

(2) Several of their colleagues (same specialty) have been on the Board of Trustees of NJFHCE since it started.

(3) One of these is now President.

(4) Another (myself) is Medical Director.

(5) Articles and notes about it appear regularly in the MSNJ *Newsletter* and the MSNJ *Journal*.

(6) The House of Delegates of MSNJ has had many debates pro and con the Foundation.

(7) We are involved in Public Law 92-603 (the PSRO law).

(8) There are 8 PSRO areas in New Jersey.

(9) New UR regulations for Medicare and Medicaid started on February 1, 1975.

(10) There is a new National Health Planning and Resources Development Act (P.L. 93-641), as of January 4, 1975.

(11) NJFHCE is *not* a branch of *any* government.

These are active, intelligent, involved men (they wouldn't be going to the meeting otherwise), of the highest professional skills. Yet, I worry about them. Others in our own State are opposed to NJFHCE and its activities, but I don't worry about them, because they have at least kept themselves informed about the forces around them. They may not like the way we are dealing with them, but they are *aware*.

I fear for the man who diligently goes about his work, but ignores the gathering momentum of government activities. He will answer when the rules of the game have changed, and will say, "What happened? Why didn't 'they' (MSNJ, AMA, and so on) do something?" They (we) are trying to do something, and have been trying for years.

When half of a sample of a group from a small state with excellent communications are misinformed, or uninformed, that's bad. The Navy expression is, "Ten percent don't get the word." In this case, it's 50 percent.

Listen to AMA, MSNJ, AAFP, ASIM, FACS, njfhce, and others . . . Read *AMA News*, *Medical Tribune*, *Medical World News*, *New England Journal of Medicine*, and so on (don't stop after you've read the scientific articles). They're all trying to inform you. Listen to your county medical society, to the hospital association, or to the advocates of physicians' unions — *Listen to Someone! The New York Times*, front page, February 21, 1975: "AMA Sues Over Peer Review" — wrong!

Allow me some personal notes: (1) I have *not* retired (leave of absence one year; still do office work). (2) I do *not* work for *any* government. (3) I work for the Board of Trustees of NJFHCE — they are *all* practicing physicians. (4) I represent *you* — practicing physicians — in all dealings with various agencies.

A few more quotes:

"Nobody is trying to help the doctors." — wrong

"Medical societies don't do anything." — wrong

"There's no sense going to meetings; they don't listen to me." — wrong

"I'm too busy to pay attention to these things." — true, but spend a little time on other matters.

"I just want to practice in peace and quiet." — agreed, but those days are gone forever.

"We have met the enemy and he is us." — could be true!

Investigate, ask, discuss, read, think. Agree with us, argue with us, throw shoes (not rocks) at us. But *PLEASE*, don't be apathetic.

Daniel J. O'Regan, M.D.

# The Physician Hospital Trustee

In the past two decades, the physician's role has changed in many ways. Relationships with patients and families, with professional organizations, and with peers are just not the same — lamentably to some of us, but happily to others. One rejoicable change has been the involvement of physicians in hospital management, which has opened the door to better relationships between the governing board, the administrative staff, and the medical staff.

Legally, the authority to operate a health care facility resides in its Board of Trustees. They, of course, have final jurisdiction over medical staff appointments, establishment of new departments, new services, and the whole sweep of physician activities within a hospital. Although government puts in its four cents (inflation having set in) through Certificate of Need legislation, Medicare and Medicaid law, and so on, the Board of Trustees is still supreme.

Although active physicians have participated in hospital decision-making through Joint Board-Staff Conference Committees, this has obviously not been satisfactory over the years, and the demand for physician representation on hospital Boards of Trustees has grown. The clear premise of argumentation was the obvious advantage to all concerned of beeline input from the medical segment into the deliberative sessions of the policy-makers, the governing board.

The fears of some hospital trustees that physicians appointed to the Board would be guided by a conflict of interest have been expressed, but experience has shown otherwise. Physician trustees have utilized their knowledge and experience in a positive and constructive way, and have exhibited no greater conflict of interest than the businessman, the labor union representative, the consumer advocate, or the government worker trustee.

Regan\* summarized the physician's role in hospital management concisely: "It is the considered judgment of many respected hospital professionals that (a) the medical perspective represented by the presence of experienced physicians on the Governing Board is an essential ingredient to a well-balanced Board; (b) that such a physician need not be the official representative of the Medical Staff, since protocol already exists in the Corporate Bylaws and Medical Staff Bylaws for an orderly process of communications, and (c) that there is no magic in numbers which would justify the presence of one physician and rulebook as super-numerary the presence of more than one physician on the Governing Board."

If your hospital does not have adequate physician representation on its Board of Trustees, you should work toward this goal.

James A. Rogers, M.D.

## "On"

The Japanese word "on" means an indebtedness, but it also means much more. It is an idea, a way of life, and a moral principle with which we in America should be familiar. In these days of explicit selfishness, of disloyalty to friends, teachers, and family, of falling governments, of total amnesty — granted and accepted, of conditional amnesty — proffered and refused, "on" is a concept we desperately need.

When one does an act of service to another, the recipient also accepts "on," i.e., an indebtedness, which must be carried and ultimately repaid. The concept of "on" engenders an implicit effort to make restitution and dissipate the obligation, even if one needs to go to great lengths to unburden himself. Repayment is obligatory. Time does not lessen the encumbrance, for "on" increases — gains "interest" — rather than decreasing with the years. The giver of the benefaction, known as the "on-man" must be very careful in subsequent relations with his "debtor" in order to avoid feelings of resentment or embarrassment, and to permit the smooth operation of this ethic.

\*Regan W A: Physician's role in hospital management. *The Regan Report on Medical Law* 7:12, December 1974

Certain types of "on" are passive — "on" to ancestors, to country, to parents, to teachers, to leaders, for example, fall into this category. Obligations passively incurred must be repaid in some fashion nevertheless. This differs from repayment of "on" for simple acts of daily interpersonal relations, such as presentation of gifts, payment for a meal, a letter of recommendation, and the like, which may be straightforward; here, a scrupulous kindred equivalent will suffice, but within a reasonable time-frame.

"On" to a mother is more complex; it refers, not just to love, but to all she has done for her child, her sacrifices, and her actions to further her offspring's development into adulthood. A son's "on" to his parents may appear somewhat elusive; it includes the notion that he owes them a debt from the fact that *they even existed* and that this existence resulted in his coming into reality. "On" here means love, but *more* than that as well — it implies a limitless, timeless devotion.

How does one repay this "on" to parents? Not by words, or by gifts alone can one dissipate this debit. Interestingly — and importantly — one makes a *part-payment* against parental "on" by giving equally good or *better* upbringing and rearing to his own children. Thus, the peasant-farmer whose son was permitted to escape poverty and become an American businessman is partially repaid when his son's son is educated to become a physician.

"On" to teachers may be reimbursed by passing knowledge on to other generations of students. Repayment of "on" to our national ancestors and to our country is no less important. This can be done — again, only in part — through a life of respect for law, a national pride, and an obedience to the ethical principles of our heritage.

Today, to our everlasting shame, too many of our fellow Americans have distorted the concept of favors and repayment. Bribes are used freely to obtain illegal services. Threats, blackmail, and extortion are commonplace means to an end. Unhappily, "government" often means so-called "leaders" with hands extended to receive prepayment for undeserved appointments to office or jobs, or for special business favors. This mutilation of honor has confused the common man, whose allegiance, under such circumstances then turns 360 degrees toward himself.

As to parents, we in medicine too often see them "repaid" by heartless sons and daughters who unceremoniously reposit them in custodial nursing homes for others to manage. There, aides and nursing personnel may show more courtesy and respect and provide better personal care than the family had given at home. Fifty to a hundred years ago, patients frequently expressed gratitude to their physicians through gifts of food or other tangibles, exclusive of a fee for service. Now "payment" for the most ardent personal health services too frequently consists of a signed insurance claim application and nothing more! Not even a "thank you" is given.

Is this the American bastardization of a principle which actually existed in our people at some time in our glorious past? Or, did we never have a feeling of indebtedness or obligation at the highest ethical level, of the kind expressed by Japanese "on?" Surely the time has come to reassess our concepts and our values and, hopefully, to modify them so that we can regain our individual and national self-respect. A return to basics, such as love and respect for parents and country, a reaffirmation of such fundamentals as the Ten Commandments, the Hippocratic Oath, the Pledge of Allegiance, and the Golden Rule, might be a first step. A.K.

## 209th Annual Meeting

May 31-June 3

Cherry Hill



*The "ailing A-V junction" is a syndrome that includes a variety of arrhythmias and conduction defects related to abnormalities in impulse formation (junctional rhythms), impulse conduction (A-V dissociation), and impulse storage (ventricular pre-excitation). A schema is presented for the identification of these dysrhythmias based upon modern electrophysiologic concepts. Hopefully, precise electrophysiologic diagnosis will engender a rational approach to therapy.*

## The Ailing A-V Junction\*

**Edwin L. Rothfeld, M.D./Newark**

The sick sinus syndrome and trifascicular, intraventricular conduction defects have enjoyed considerable notoriety in recent publications, but relatively little attention has been paid to disorders of the intervening portion of the cardiac conduction system, the atrioventricular (A-V) junction. The healthy A-V junction provides a unique combination of electrophysiologic functions including impulse formation, conduction and storage or capacitance. The "ailing A-V junction" includes abnormalities in any of these properties, occurring singly or in varying combinations. The purpose of this report is to provide a schema for the diagnosis of these dysrhythmias based upon modern electrophysiologic concepts.

### Basic Considerations

In 1883, Gaskell promulgated the "myogenic" theory of A-V transmission which held that the cardiac impulse was delivered from atrium to ventricle via ordinary, working muscle cells.<sup>1</sup> A decade later, His and Tawara proved that "specialized" conduction tissue was actually responsible for A-V conduction when they described the common A-V bundle and the A-V node, respectively.<sup>2,3</sup> Alternate pathways for A-V conduction were subsequently discovered by Kent in 1893,<sup>4</sup> Mahaim in 1947,<sup>5</sup> and James in 1961.<sup>6</sup> The contemporary view of the structure of the A-V junction was also documented by James,<sup>6</sup> while Hoffman, using modern techniques, described its electrophysiology in 1961.<sup>7</sup> Junctional dysrhythmias were originally categorized by Lewis in 1925,<sup>8</sup> but have since been beaten by Katz and Pick,<sup>9</sup> and by Scherf.<sup>10</sup> Finally, the advent of the His bundle electrogram (HBE) in 1969 provided a vital tool for the investigation of the ailing A-V junction.<sup>11</sup>

Developmentally, the A-V junction is present at a very early stage and can be identified as a cluster of cells in the primitive atrium behind the posterior endocardial cushion of the eight mm. embryo. Recent observations have shown that the A-V node and His bundle arise separately and later merge, except in congenital heart block where a gap persists between them.<sup>12</sup> In the mature heart, the A-V junction consists of the distal parts of the internodal tracts, the A-V node itself and the proximal or penetrating portion of the His bundle. It is found subendocardially in the right atrium within a triangle formed by the annular attachment of the septal leaflet of the tricuspid valve and the ostia of the coronary sinus and the inferior vena cava. The internodal tracts, anterior, middle and posterior, link the sinus and A-V nodes, while the A-V node itself is functionally subdivided into A-N, N and N-H portions, formerly designated head, body and tail. The N-H area blends imperceptibly with the His or common A-V bundle which has a proximal or penetrating part and a distal or branching part leading to the trifascicular, intraventricular conduction system. The cellular population of the A-V junction consists of Purkinje fibers, capable of spontaneous impulse formation, and atypical muscle or transitional cells that participate in impulse conduction but lack spontaneous automaticity. The blood supply is derived from the right coronary artery in more than 90 percent of hearts, accounting for the frequent occurrence of junctional dysrhythmias in patients with right coronary artery disease.

\*This work is from the Division of Cardiology, Department of Medicine, Newark Beth Israel Medical Center and New Jersey College of Medicine, CMDNJ, Newark, and was supported in part by a grant from the New Jersey Heart Association.

Modern techniques, including epicardial mapping, intracellular microelectrode recording and His bundle electrography, have provided considerable insight regarding the tripartite function of the junction. Purkinje fibers are scattered throughout with the exception of the N-region of the A-V node; these cells are potential pacemakers because they possess automaticity owing to spontaneous diastolic depolarization. Impulse conduction is rapid throughout the junction with the exception of the N-region of the A-V node where physiologic delay occurs, accounting for the normal PR segment of the surface electrocardiogram. This teleologic mechanism is abolished in certain congenital and acquired states, and ventricular pre-excitation ensues.

Junctional dysrhythmias may be grouped according to specific electrophysiologic dysfunction: abnormal impulse formation or junctional rhythms; abnormal impulse conduction or A-V dissociation; and abnormal impulse storage or ventricular pre-excitation.

### Abnormal Impulse Formation: Junctional Rhythms

Dysrhythmias related to abnormal impulse formation are currently referred to as junctional rhythms because it is not yet clear whether they originate in the N-H portion of the A-V node or in the proximal part of the His bundle. They may be categorized as being either passive or active (Table 1). Passive rhythms are escape mechanisms that emerge because of depression or failure of a higher pacemaker or failure of conduction from a higher pacemaker. They are frequently observed in the potpourri of the sick sinus syndrome (Figure 1) and in normal subjects during the slow phase of sinus arrhythmia (Figure 2). Passive junctional rhythms also occur during sinus rhythm complicated by intranodal block (Figure 3) and in atrial fibrilla-

tion with intranodal block induced by digitalis (Figure 4).

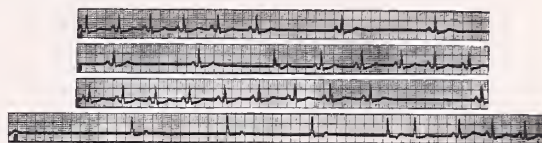


Figure 1: Strips A thru D are a continuous recording of lead II in a 72-year-old man with syncope attributed to sinus node dysfunction. The first four beats in D represent a passive or escape junctional rhythm during profound sino-atrial block.

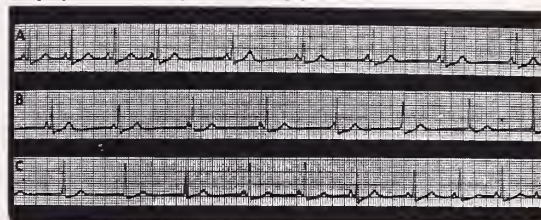


Figure 2: Strips A thru C are a continuous recording of lead II in a normal teen-ager. There is a respiratory sinus arrhythmia with a passive junctional rhythm emerging during its slow phase in the middle of strip B and persisting for the first three beats in strip C.

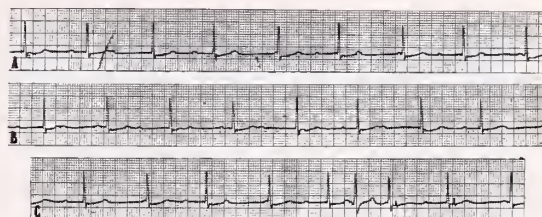


Figure 3: Strips A thru C are a continuous recording of a monitor lead in a digitoxic patient. There is normal sinus rhythm with an atrial rate of 90. In addition, there is complete intranodal block with a junctional rhythm controlling the ventricles at a rate of 58.

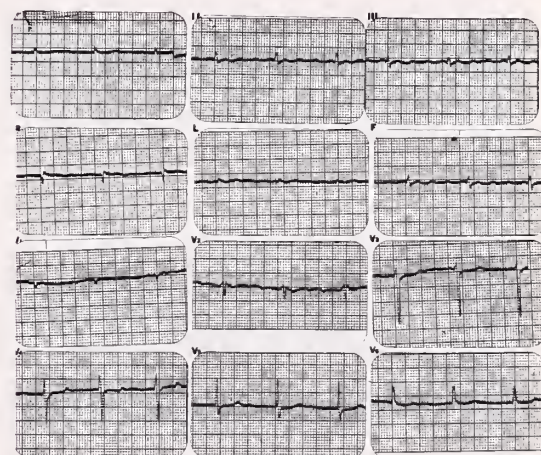


Figure 4: This 12-lead ECG was obtained from a digitoxic patient with coarse atrial fibrillation and a precisely regular junctional rhythm related to intranodal block.

Table 1  
Abnormal Impulse Formation

- a. Passive
  1. Depression or failure of a higher pacemaker
  2. Failure of conduction from a higher pacemaker
- b. Active
  1. Enhancement of junctional pacemakers
    - (a) paroxysmal
    - (b) non-paroxysmal
  2. Other mechanisms: re-entry, parasystole



Table 2  
Junctional Tachycardia

Paroxysmal		Nonparoxysmal
Abrupt; early JPC	Onset	Gradual; escape beat
Abrupt	Offset	Gradual
180-220	Rate	70-130
Retrograde, usually	P-contour	Normal, usually
Normal, usually	QRS-contour	Normal, usually
Precisely regular	Rhythm	Precisely regular
Abrupt offset; nil	C.S.P.	Nil
DMI; WPW	Etiology	Digitalis; DMI; Carditis

Active junctional rhythms are produced by enhanced automaticity of junctional pacemaker cells or by other mechanisms such as re-entry or parasystole. They may be paroxysmal or non-paroxysmal depending upon onset, termination, rate and other criteria listed in Table 2. The paroxysmal form usually has an abrupt onset, a more rapid rate, retrograde P-waves and occurs in the setting of diaphragmatic infarction and pre-excitation (Figure 5). The non-paroxysmal variety has a more gradual onset and termination, a slower rate and frequently normal P-waves; it is seen in digitoxicity, diaphragmatic infarction and acute carditis (Figure 6).

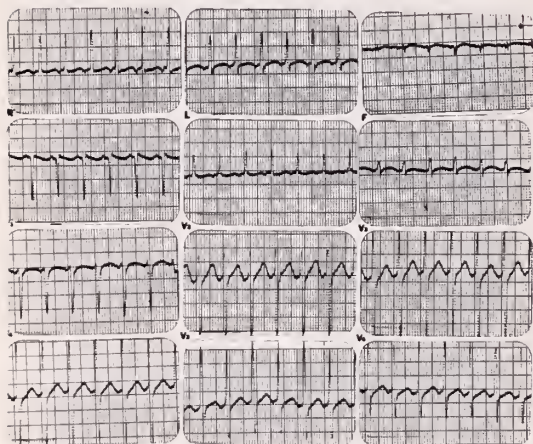


Figure 5: Paroxysmal junctional tachycardia with atrial and ventricular rates of 172.



Figure 6. Strips A thru C are a continuous recording of lead III. There is a nonparoxysmal junctional rhythm with a rate of 80 competing with a normal sinus rhythm whose atrial rate is 75.

Table 3  
Features of Junctional Rhythms

A. Rate: "normally" 40-60 per minute
B. Rhythm: precisely regular, <i>usually</i>
C. P-contour: retrograde, <i>usually</i>
D. PR interval: less than 0.12 second, <i>usually</i>
E. QRS — contour: normal, <i>usually</i>
F. Etiology: RCA disease, digitalis, carditis, Normal subjects

The traditional features of junctional rhythms are listed in Table 3; exceptions to all of these criteria are not rare. While the "normal" rate of junctional automatic cells is 40 to 60 per minute, both junctional tachycardia and bradycardia are often observed. The rhythm is usually regular but may be irregular in the presence of variable A-V block. Although "retrograde" P-waves are usually present, they may be absent if atrial fibrillation, or intra-atrial block coexists or if the P-waves are buried within QRS complexes. Recent investigations have shown that retrograde P-waves are not diagnostic of junctional rhythm, but may also be seen in a variety of ectopic atrial rhythms.<sup>13</sup> The PR or RP interval is usually less than 0.12 second, but variations occur in A-V and V-A block. In junctional rhythm, the PR or RP interval is not determined by the site of origin of the rhythm, but rather by comparative antegrade and retrograde conduction velocities. Accordingly, the terms upper, middle and lower nodal rhythm should be abandoned. QRS contour is usually normal but may be altered when there is aberrant intraventricular conduction, antecedent bundle branch block or pre-excitation. Junctional rhythms are most often observed in ischemic heart disease, usually involving the right coronary artery, digitoxicity, pre-excitation, acute carditis and occasionally in normal subjects. They must be distinguished from fine atrial fibrillation (Figure 7) and the pseudojunctional rhythm of hyperkalemia (Figure 8). The semantics concerning various forms of junctional rhythm are confusing because there is little agreement on criteria for the diagnosis of these mechanisms; a partial list is shown in Table 4.

#### Abnormal Impulse Conduction — (A-V Dissociation)

A-V dissociation is a collective term that refers to any abnormality in conduction through the junction. These conduction defects may be sub-



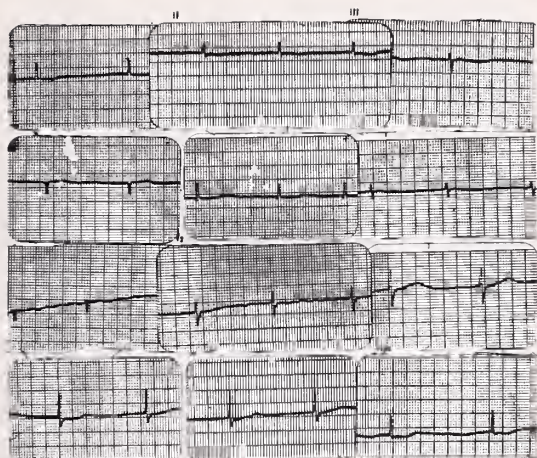


Figure 7: This 12-lead ECG shows fine atrial fibrillation with a fairly regular ventricular rate. The fibrillatory waves are best seen in V1 and V2. This arrhythmia must be distinguished from junctional rhythm with hidden or non-existent P-waves.

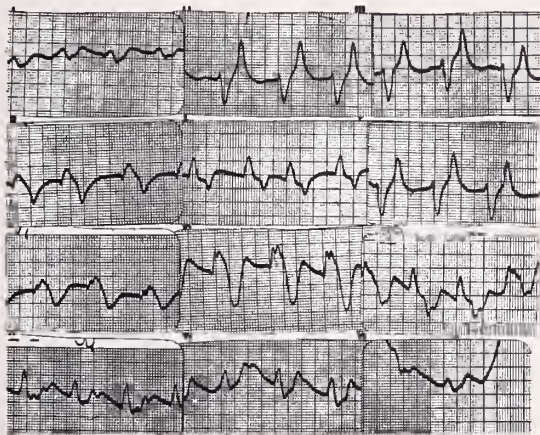


Figure 8: Pseudojunctional rhythm of hyperkalemia. This 28-year-old man had end-stage kidney disease and a serum potassium of 8.1 meq./L. Note the low voltage P-waves, broadened QRS and tall, peaked T-waves. The regular ventricular rhythm and inapparent atrial activity may lead to an erroneous diagnosis of junctional rhythm.

Table 4  
*Junctional Rhythm Semantics*

- A. Junctional rhythm
- B. Upper, middle and lower nodal rhythm
- C. His bundle rhythm
- D. Coronary sinus rhythm (retrograde P; normal PR)
- E. Coronary nodal rhythm (normal P; short PR)
- F. Inferior atrial rhythm
- G. Left atrial rhythm (retrograde P; inverted P in V6)
- H. Ectopic atrial rhythm

divided into interference and A-V block depending upon whether the ventricular rate is faster or slower than the atrial rate (Table 5). In interference, supraventricular impulses fail to

Table 5  
*Abnormal Impulse Conduction  
(A-V Dissociation)*

- A. Interference ( $VR > AR$ )
  1. Junctional rate faster than sinus rate
  2. Isorhythmic
  3. With peri-junctional exit block
- B. Block ( $AR > VR$ )
  1. Long PR: intranodal; intraventricular; both
  2. Incomplete: type I; type II; advanced
  3. Complete: intranodal; intraventricular

conduct because of the more rapid rate of the junctional or ventricular pacemakers which provides a functional or physiologic type of dissociation, whereas in true A-V block, supraventricular impulses are conducted abnormally because of a fixed, organic defect.

The ventricular rate is usually considerably faster than that of the sinus node in interference (Figure 9), but nearly identical rates are identified in the isorhythmic form of this arrhythmia (Figure 10). The ventricular rate may be remarkably slow if a peri-junctional or peri-ventricular exit block coexists (Figure 11).

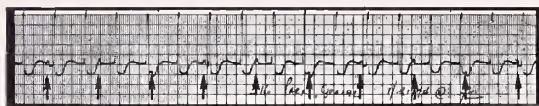


Figure 9: This monitor lead shows an interference type of A-V dissociation with a junctional pacemaker controlling the ventricles at a rate of 95 and the sinus node firing the atria at a rate of 56 (arrows).

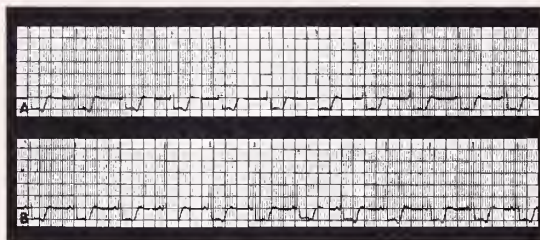


Figure 10: Strips A and B are a continuous recording of a monitor lead showing an isorhythmic form of interference.

A-V block may be subdivided into first degree or long PR interval, second degree or incomplete block and third degree or complete heart block (Table 5). Long PR interval is not a true form of A-V block since the atrial and ventricular rates are identical, but it does represent impaired conduction that may be intranodal, intraventricular or both. Incomplete A-V block is characterized by one or more non-conducted P-waves and is subgrouped into Type I with progressively in-

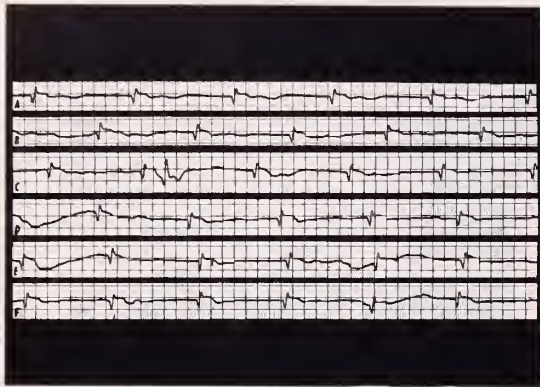


Figure 11: Strips A thru F represent a continuous recording of aVF in a 48-year-old man with acute inferior infarction on no cardioactive drugs. There is interference A-V dissociation with a sinus (atrial) rate of 36 and a junctional (ventricular) rate of 40. The slow ventricular rate may be attributed to a peri-junctional exit block.

creasing PR intervals preceding the blocked P-wave, Type II with no change in PR interval before the blocked P-wave, and advanced, incomplete A-V block with two or more non-conducted P-waves occurring consecutively. Complete A-V block may be due to intranodal or intraventricular lesions.

The HBE has shown that long PR intervals may be due to intranodal delay (long A-H time) intraventricular delay (long H-V time) or both. Long A-H intervals are characteristic of right coronary arterial disease, digitoxicity and acute carditis, while long H-V intervals occur in left coronary disease and incomplete forms of trifascicular, intraventricular block (Table 6).

HBE studies in patients with incomplete A-V block have revealed intranodal lesions in most cases of Type I and intraventricular conduction defects in Type II. Other comparative features

Table 6  
HBE and A-V Block

- A. Long PR
  1. Long AH: Digitalis, DMI, Carditis
  2. Long HV: AMI, ITB
- B. Incomplete AV Block
  1. Type I: Intranodal — Digitalis, DMI
  2. Type II: Intraventricular — AMI
- C. Complete AV Block
  1. Intranodal — DMI, Congenital, Digitalis
  2. Intraventricular — AMI, Lev's,† Lenegre's‡

†Lev's disease — idiopathic calcification and sclerosis of the intraventricular conduction system.

‡Lenegre's disease — idiopathic fibrosis of the intraventricular, conduction system.

Table 7  
Second Degree AV Block

Wenckebach (One)		Mobitz (Two)
Progressive increase	PR	No Change
Absent	BBB	Present
Abnormal AH	HBE	Abnormal HV
Inferior	Site of infarction	Anterior
Common	Dig toxicity	Rare
Common	Acute carditis	Rare
Rare	Power failure	Common
Rare	Sudden death	Common
Rare	CHB	Common
Good	Prognosis	Grave
None, usually	Treatment	Pacemaker, stat

of Type I and II, incomplete A-V block are listed in Table 7. Basically, Type II is a more serious lesion since its presence implies widespread, trifascicular, intraventricular conduction disease. Figures 12 and 13 demonstrate typical examples of Types I and II block, respectively.

Use of the HBE in complete A-V block has again shown that lesions responsible for this dysrhythmia may be intranodal or intraventricular. The former show a junctional pacemaker with a narrow QRS, rates of 40 to 60 per minute and normal H-V intervals (Figure 14). The latter have ventricular pacemakers with broad QRS, much slower rates and normal A-H intervals (Figure 15). Intranodal block may be congenital or due to digitalis or right coronary disease. Intraventricular block is seen in left cor-

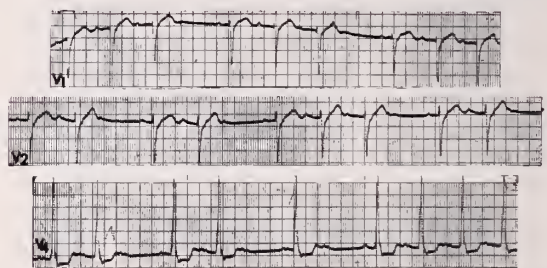


Figure 12: Leads V1, V2 and V4 show incomplete A-V block of the Type I or Wenckebach variety.

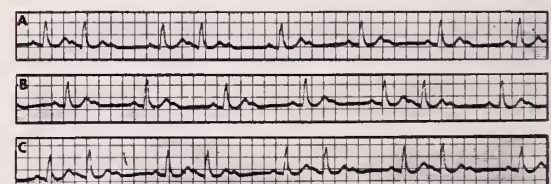


Figure 13: Strips A thru C are a continuous recording of lead II demonstrating incomplete A-V block of the Type II or Mobitz variety.



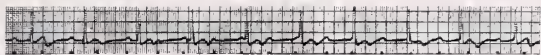


Figure 14: There is complete intranodal block with a junctional rate of 59 and a sinus rate of 108 (dots).



Figure 15: There is complete intraventricular block with a ventricular rate of 38 and a sinus rate of 77 (arrows). A paroxysm of ventricular tachycardia occurs in the middle of the strip.

onary disease and in idiopathic conduction defects recently described by Lev<sup>14</sup> and Lenegre.<sup>15</sup>

### Abnormal Impulse Storage — (Ventricular Pre-excitation)

The normal storage function of the N-region of the A-V node is abolished when "bypass" fibers are present or when the capacitor becomes "leaky," owing to ischemia, electrolyte imbalance or drug effects. These mechanisms provide for ventricular pre-excitation, characterized in the surface ECG by a diminished or absent PR segment. A variety of bypass tracts have been described but the more common ones are the Kent bundles, the James fibers and the paraspecific fibers of Mahaim (Table 8). Because of the existence of dual

Table 8

#### Abnormal Impulse Storage

- A. WPW: Kent bundles A (LV) & B (RV) — atrium to ventricle — short PR & delta wave
- B. LGL: James fibers — atrium to His bundle — short PR & Normal QRS
- C. Mahaim: Paraspecific fibers — His bundle to ventricle — normal PR & delta wave
- D. "Leaky" node: Congenital & acquired — short PR & no delta wave

pathways for conduction, re-entry and reciprocal tachycardias may occur in any of these situations. The bundles of Kent connect the atrium with the left ventricular (type A) or right ventricular myocardium (type B); these ECGs show short or absent PR segments and broad QRS complexes with marked initial slurring referred to as delta waves, the classical Wolff-Parkinson-White syndrome (Figures 16 and 17). James fibers connect the atrium to the His bundle and are identified in the ECG by

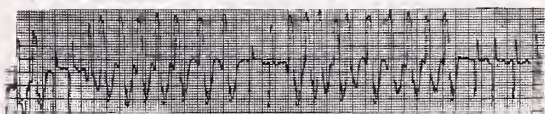
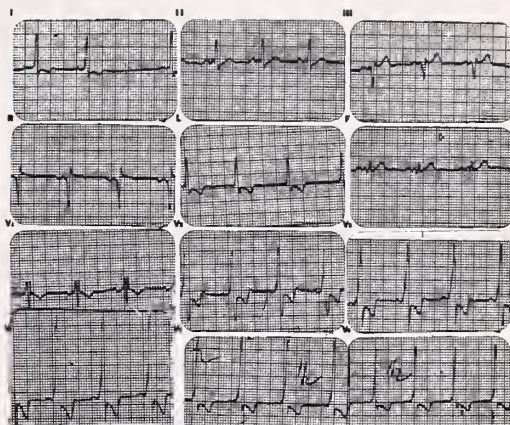


Figure 16: The 12-lead ECG reveals WPW syndrome, type A with a run of pseudoventricular tachycardia in the strip below.

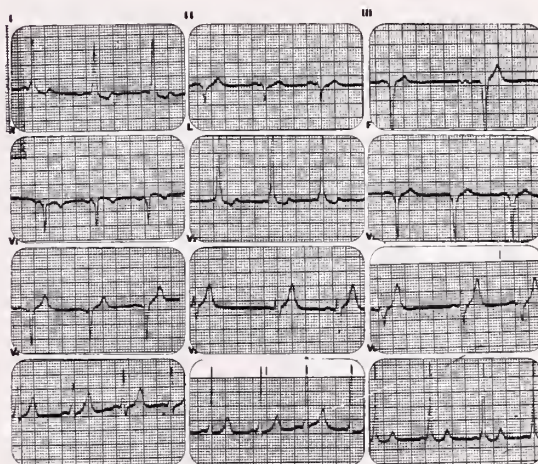


Figure 17: The 12-lead ECG demonstrates WPW, type B with negative delta waves in V1.

### LGL SYNDROME

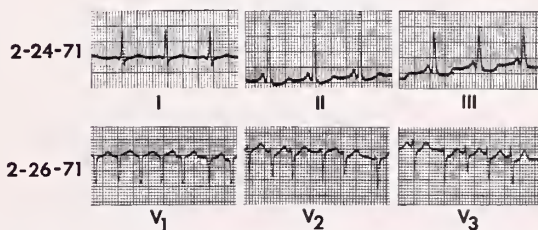


Figure 18: The Lown-Ganong-Levine syndrome. On 2-24-71 there is normal sinus rhythm with pre-excitation (short PR intervals) but no delta waves. On 2-26-71 atrial fibrillation with a rapid ventricular rate supervenes.



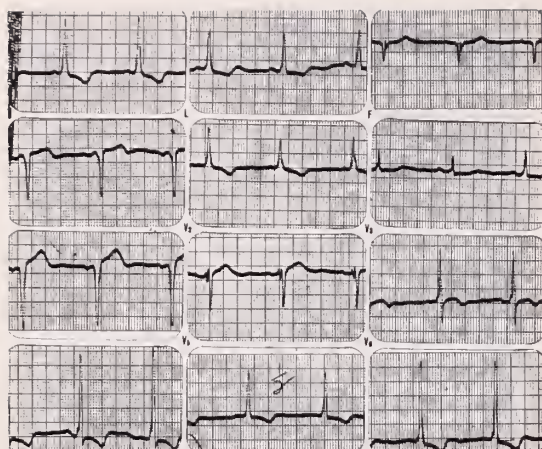


Figure 19: This 12-lead ECG suggests the Mahaim type of "pre-excitation;" normal PR intervals with prominent delta waves.

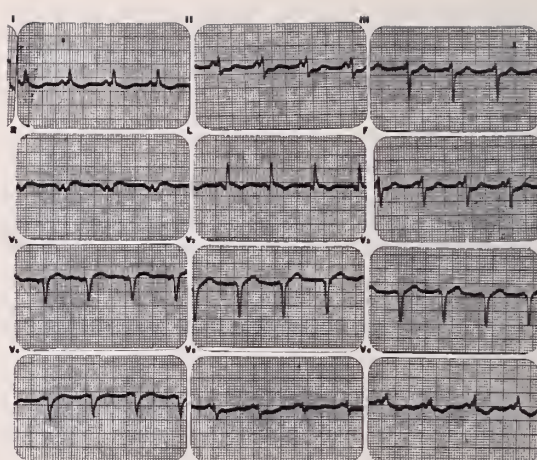


Figure 20: This 12-lead ECG belongs to a 56-year-old male with remote anterior infarction. There is an acquired form of ventricular pre-excitation manifested by short PR intervals.

short or absent PR segments and normal QRS complexes, the Lown-Ganong-Levine syndrome (Figure 18). The Mahaim fibers link His bundle with ventricular myocardium producing normal PR segments and broad QRS complexes with delta waves (Figure 19). In addition, ventricular pre-excitation may occur in the absence of bypass tracts when the A-V node loses its capacitor function as in myocardial infarction (Figure 20).

#### Table of Abbreviations

AH	— Atrium to His bundle conduction time
AMI	— Anterior myocardial infarction
AR	— Atrial rate
BBB	— Bundle branch block
CHB	— Complete heart block
CSP	— Carotid sinus pressure
DMI	— Diaphragmatic myocardial infarction
HBE	— His bundle electrogram
HV	— His bundle to ventricle conduction time
ITB	— Intraventricular trifascicular block
JPC	— Junctional premature contraction
LGL	— Lown — Ganong — Levine syndrome
RCA	— Right coronary artery
VR	— Ventricular rate
WPW	— Wolff — Parkinson — White syndrome

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## Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

ound useful in the management of vertigo\* associated with  
ases affecting the vestibular system.

an relieve nausea and vomiting often associated with vertigo.\*  
usual adult dosage for Antivert/25 for vertigo:\* one tablet t.i.d.  
Also available as Antivert (meclizine HCl) 12.5 mg. scored  
tablets, for dosage convenience and flexibility.

Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for  
sea, vomiting and dizziness associated with motion sickness.

### SUMMARY OF PRESCRIBING INFORMATION

**INDICATIONS.** Based on a review of this drug by the National Academy of  
Sciences—National Research Council and/or other information, FDA has classified  
indications as follows:

**Effective:** Management of nausea and vomiting and dizziness associated with  
motion sickness.

**Probably Effective:** Management of vertigo associated with diseases affecting the  
vestibular system.

Additional classification of the less than effective indications requires further  
investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during preg-  
nancy or to women who may become pregnant is contraindicated in view of the  
teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation  
has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./  
kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate.  
Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hyper-  
sensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients  
should be warned of this possibility and cautioned against driving a car or operating  
dangerous machinery.

**Usage in Children:** Clinical studies establishing safety and effectiveness in children  
have not been done; therefore, usage is not recommended in the pediatric age group.


**Usage in Pregnancy:** See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred  
vision have been reported.

More detailed professional information available on  
request.

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A division of Pfizer Pharmaceuticals  
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**Antivert<sup>®</sup>/25**  
(meclizine HCl) 25 mg. Tablets  
**for vertigo\***

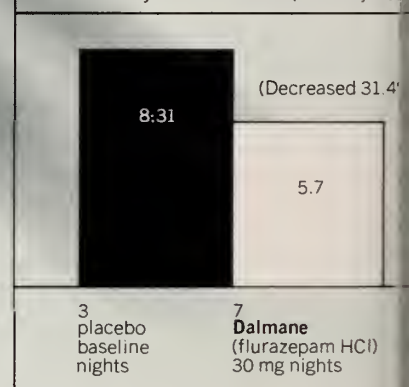


# Would sleep with fewer nighttime awakenings benefit your patients with insomnia?

**Highly predictable results for your patients with trouble staying asleep...**

...can be obtained with Dalmane (flurazepam HCl). As shown below, Dalmane significantly reduces nighttime awakenings:

**Average Number of Nighttime Awakenings\***  
(Four Geographically Separated Sleep Research Laboratory Clinical Studies, 16 Subjects)





And for those with trouble  
falling asleep or sleeping  
long enough...

Dalmane (flurazepam HCl)  
delivers excellent results.  
Clinically proven in sleep research  
laboratory studies: on average,  
sleep within 17 minutes that lasts  
up to 8 hours.<sup>5</sup>

Dalmane (flurazepam HCl)  
is relatively safe, seldom  
causes morning "hang-over",  
and is well tolerated. The  
usual adult dosage is 30 mg *h.s.*,  
even with elderly and debilitated  
patients, limit the initial dose to  
15 mg to preclude oversedation,  
dizziness or ataxia. Evaluation of  
possible risks is advised before  
prescribing.

#### REFERENCES:

Paracan I, Williams RL, Smith JR: The  
laboratory in the investigation of sleep  
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the 124th annual meeting of the American  
Psychiatric Association, Washington DC,  
Oct 3-7, 1971  
Prosser JD Jr: A system for automatically  
recording sleep. Scientific exhibit at the  
annual Clinical Convention of the  
American Medical Association, Boston,  
Nov 29-Dec 2, 1970; and at the 42nd annual  
scientific meeting of the Aerospace Medical  
Association, Houston, Apr 26-29, 1971  
Sogel GW: Data on file, Medical Depart-  
ment, Hoffmann-La Roche Inc., Nutley NJ  
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Before prescribing Dalmane (flurazepam  
HCl), please consult complete product  
literature, a summary of which follows:  
**Indications:** Effective in all types of insomnia  
characterized by difficulty in falling asleep,  
frequent nocturnal awakenings and/or early  
morning awakening; in patients with recurring  
insomnia or poor sleeping habits; and in  
acute or chronic medical situations requiring  
uninterrupted sleep. Since insomnia is often transient  
and intermittent, prolonged administration is  
usually not necessary or recommended.  
**Contraindications:** Known hypersensitivity  
to flurazepam HCl.

**Warnings:** Caution patients about possible  
combined effects with alcohol and other  
CNS depressants. Caution against hazardous  
occupations requiring complete mental alert-  
ness (*e.g.*, operating machinery, driving).  
Use in women who are or may become preg-  
nant only when potential benefits have been  
weighed against possible hazards. Not  
recommended for use in persons under 15  
years of age. Though physical and psycho-  
logical dependence have not been reported  
on recommended doses, use caution in  
administering to addiction-prone individuals  
or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial  
dosage should be limited to 15 mg to preclude  
oversedation, dizziness and/or ataxia. If  
combined with other drugs having hypnotic  
or CNS-depressant effects, consider potential  
additive effects. Employ usual precautions  
in patients who are severely depressed, or  
with latent depression or suicidal tendencies.  
Periodic blood counts and liver and kidney  
function tests are advised during repeated  
therapy. Observe usual precautions in  
presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness,  
lightheadedness, staggering, ataxia and  
falling have occurred, particularly in elderly

or debilitated patients. Severe sedation,  
lethargy, disorientation and coma, probably  
indicative of drug intolerance or overdosage,  
have been reported. Also reported were  
headache, heartburn, upset stomach, nausea,  
vomiting, diarrhea, constipation, GI pain,  
nervousness, talkativeness, apprehension,  
irritability, weakness, palpitations, chest  
pains, body and joint pains and GU com-  
plaints. There have also been rare occurrences  
of sweating, flushes, difficulty in focusing,  
blurred vision, burning eyes, faintness,  
hypotension, shortness of breath, pruritus,  
skin rash, dry mouth, bitter taste, excessive  
salivation, anorexia, euphoria, depression,  
slurred speech, confusion, restlessness,  
hallucinations, and elevated SGOT, SGPT,  
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phosphatase. Paradoxical reactions, *e.g.*,  
excitement, stimulation and hyperactivity,  
have also been reported in rare instances.

**Dosage:** Individualize for maximum beneficial  
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may suffice in some patients. *Elderly or  
debilitated patients:* 15 mg initially until  
response is determined.

**Supplied:** Capsules containing 15 mg or  
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Depend on highly  
predictable results  
with

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(flurazepam HCl)

One 30-mg capsule *h.s.*— usual adult dosage  
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elderly or debilitated patients.

specifically indicated  
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- sleep with fewer nighttime awakenings
- sleep within 17 minutes, on average
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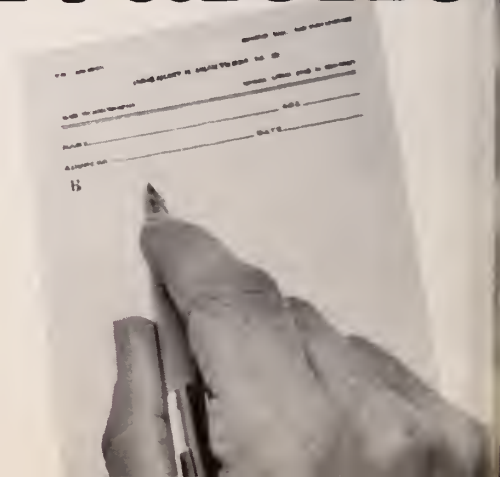


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# Bioequivalence





# the weight of scientific opinion:

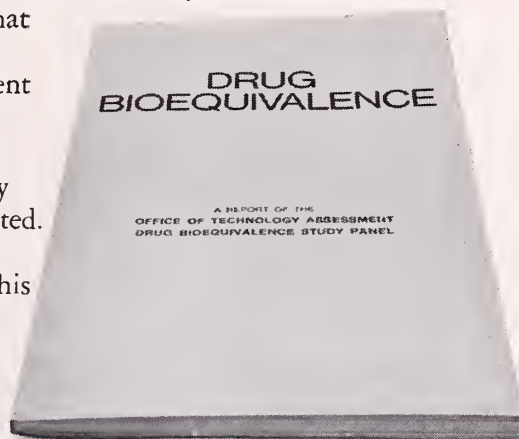
If the pharmacist substituted a chemically equivalent drug for the one you have specified for your patient—could you be certain of that product's safety and effectiveness simply because the chemical content was the same?

Definitely not, unless bioequivalence tests and other quality assurance checks had been conducted. The pharmaceutical industry and many scientists have maintained this position for years, but others have questioned it. Now the Office of Technology Assessment of the Congress of the United States has reported on the issue in its Drug Bioequivalence Study.\*

Here are a few definitive statements in the O.T.A. report:

"...the problem of bioinequivalence in chemically equivalent products is a real one. Since the studies in which lack of bioequivalence was demonstrated involved marketed products that met current compendial standards, these documented instances constitute unequivocal evidence that neither the present standards for testing the finished product nor the specifications for materials, manufacturing process, and controls are adequate to ensure

that ostensibly equivalent drug products are, in fact, equivalent in bioavailability.



"While these therapeutic failures resulting from problems of bioavailability were recognized and well documented, it is entirely possible that other therapeutic failures and/or instances of toxicity that had a similar basis have escaped attention."

The Pharmaceutical Manufacturers Association supports federal legislative amendments that would require manufacturers of duplicate prescription pharmaceutical products, subject to new drug procedures, to document:

(a) chemical equivalence; and

(b) biological equivalence, where bioavailability test methods have been validated as a reliable means of assuring clinical equivalence; or (c) where such validation is not possible, therapeutic equivalence.

In addition, the PMA supports federal legislation that would require certification of all manufacturers of prescription products before they could start in business, annual inspections and certification thereafter, and strict adherence to FDA regulations on good manufacturing practices.

The overall quality of the United States drug supply is excellent. But only a total quality assurance program, envisaged in these and other policy positions adopted by the PMA Board of Directors in 1974, can bring about acceptable levels of performance by all prescription drug manufacturers and thereby assure the integrity of your prescription...



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W.  
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\*Copies of the complete report on Drug Bioequivalence may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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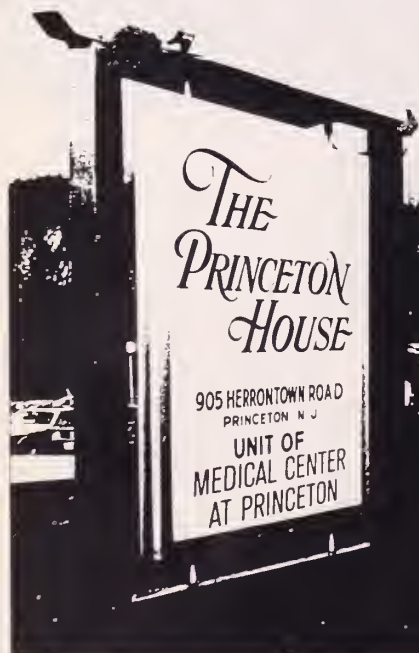
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*The copper IUD is a promising new concept due to its smaller size (decreased medical complications) and the presence of a pharmacologically active substance (increased effectiveness). Despite this, the ideal contraceptive, an inexpensive, easily available, completely safe, effective, and reversible method, requiring little or no physician supervision and minimal motivation, lies waiting to be discovered.*

## Copper Intrauterine Devices — A Review of the Literature

---

**Henry L. Tomlin, B.S.**

**Mona Devanesan, M.D., and**

**Herik Caterini, M.D./Newark\***

Intrauterine devices for contraception have appeared in medical literature on and off for approximately 100 years, but it is only in the past five years that intrauterine trace elements, mainly copper, have come into light for this purpose. Because of its unique characteristics, the copper intrauterine device has added a new perspective to contraception. This article will review these characteristics by tracing the development of the device, discussing its mechanism of action, evaluating possible systemic effects of copper, and summarizing the clinical data.

### The Biochemistry of Copper

Copper plays many important roles in the body, mainly by participating in several enzymatic reactions. The metal exists in two forms — monovalent and bivalent. The most important enzyme in action with copper is cytochrome oxidase, which functions in the oxidation of reduced cytochrome C. In this reaction, iron is oxidized and copper is reduced. This element is also essential to the activity of catalase, tyrosinase, monamine oxidase, ascorbic acid oxidase and uricase. Copper is also found in association with a number of proteins, namely, erythrocuprein, a copper containing protein in red blood cells, in cerebrocuprein, a copper protein in the brain, and in ceruloplasmin, the copper binding protein of the serum. This element is normally found in seminal plasma, sperm of several species, and in human endometrium.<sup>1</sup> The metal is also essential for the utilization of iron in the synthesis of hemoglobin and functions in the formation of bone and the

maintenance of the myelin sheath in the nervous system.<sup>1,2</sup>

### Systemic Effects of Intrauterine Copper

To date, basically only two articles confront the problem of systemic absorption of intrauterine copper. In July 1972, O'Kereke<sup>17</sup> studied the "effect of intrauterine copper and other metals on implantation in rats and hamsters." He concluded that copper ions locally have an antifertility effect and are, in part, absorbed into the system with about 20-25 mg. of copper per year being removed. He inserted radioactively tagged copper wire in rat uteri and measured the concentration of the isotope in the various organ systems; he found that only 0.4 percent is absorbed from 18.5 to 96 hours after insertion and is detectable in serum, liver, kidney, and broad ligaments.<sup>17</sup> This suggests the need for caution, if liver or kidney damage is present or suspected.

In 1973, MooYoung, *et al.*, also studied copper levels in tissues. He measured copper levels in the adrenals, brain, heart, kidneys, liver, lungs, ovaries, pancreas, endometrium, and myometrium of rhesus monkeys with intrauterine or intra-abdominal copper devices. He found significant accumulation in the kidney (28  $\mu$ gm copper/Gm of dry tissue) and felt that the kidney removed copper absorbed from the devices. Subsequent tissue studies demonstrated neither pathological changes in the kidney nor evidence of hyperplastic or neoplastic changes in the endometrium. SGOT, SGPT, LDH, and BUN remained normal.<sup>17</sup>

---

\*From the New Jersey Medical School, CMDNJ, where Doctors Devanesan and Caterini are associated with the Department of Obstetrics and Gynecology and Mr. Tomlin is a senior medical student.

Although the contraceptive device releases 50  $\mu$ gm. of copper per day, we must realize that the average adult ingests 2.5 mgm. daily. Should we then really be concerned with systemic effects of the copper from the intrauterine devices?

### The Development of the Copper IUD

Plastic and stainless steel intrauterine devices are considered nonreactive because these materials are chemically inert. Experimental work in the 1960's suggested that the intrauterine device acts as a foreign body.<sup>3</sup> The search, during this period, for better intrauterine devices using chemically inert materials did not lead to any major advances. Improvements in effectiveness were negated by an increased prevalence of side effects, resulting in no net gain in the rate of continuation of use. Research failed to produce a device that could demonstrate better performance than the original Grafenberg ring. This was a pliable ring of coiled silver wire or silkworm gut, 18 mm. in diameter, which had a failure rate of 1-2 percent.<sup>4</sup> The complications of incomplete effectiveness, spontaneous expulsion, and medical removal because of painful uterine contractions and bleeding had not been corrected. Tietze<sup>5</sup> (1968) pointed out that these complications depend upon the physical properties of the device. Investigations suggest that increased surface area leads to decreased pregnancy rates but to increased metrorrhagia and pain, while expulsion rates increase with decreasing stiffness of the device.

Despite the drawbacks of the chemically inert intrauterine devices, the concept of a locally acting uterine device remained in the minds of researchers. In 1969, Zipper and his colleagues confirmed the validity of this concept.<sup>6</sup> They studied the effects of dissociated metallic ions on the enzymatic systems and metabolic processes of rabbit endometrium and found that copper and zinc placed in a uterine horn resulted in a significant decrease in the number of implantations in that uterine horn. Other metals such as tin, silver, and magnesium did not demonstrate this effect.<sup>6,7</sup>

Following these animal experiments, Zipper studied the contraceptive efficacy of intrauterine

copper in fertile women.<sup>8</sup> A "T"-shaped device was developed to carry the copper wire and maintain it in the uterus. Using different lengths of an electrolytic grade of copper wire twisted about the vertical stems of the "T" devices, Zipper found that the contraceptive effects were directly proportional to the surface area of copper wire exposed to the intrauterine milieu. He also noted that above 300 mm. there was only a negligible increase in effectiveness.<sup>2</sup>

The "T" device is small compared to Lippe's loop because its only function is to serve as a carrier for the copper. (Without copper, this device had a very high pregnancy rate — approximately 20 per 100 women.<sup>1,13</sup>) Due to its small size and surface area, the incidence of pain and bleeding was lower than with plastic and stainless steel devices. Continuation rates are high because the reasons for removal are decreased but problems of insertion still exist.

The diameter of the "T" when folded for insertion is more than 4mm. which is greater than the diameter of the cervical canal in many women. This problem was solved by removing one of the arms of the "T" device, giving it the configuration of a "7". The diameter of this device when folded for insertion is less than 3mm.

Like the "T", the "7" is stiff enough to avoid expulsion complications, but yet not so stiff as to cause bleeding and cramping — the two major causes for removal. Studies show that about 1 percent of women will become pregnant during one year with the "7" device containing 200mm. of copper wire. Ten percent may either spontaneously expel the device or have it removed for medical reasons such as cramping or bleeding.<sup>7,8,9</sup>

Approximately 50  $\mu$ gm/day or about 20-25 mg. per year of copper is removed from a 200 mm. copper "T" device.<sup>2,10,16</sup> As a result, in order to maintain high contraceptive efficiency, the device must be replaced every two years.<sup>9</sup>

### Mechanism of Action

Although the mechanism of the contraceptive action of intrauterine devices is basically unclear, theories have been proposed to explain the



antifertility effect of copper. In 1969, Zipper and Tatum hypothesized that the effectiveness of copper might be due to influence on the uterine milieu, the biochemistry of endometrial and tubal mucosa, physico-chemical characteristics of cervical mucus and possible direct adverse effects upon the spermatozoa. Because only a minute amount of copper is needed, they concluded that the effect must be local, not systemic.<sup>8</sup> Later in that same year, Zipper demonstrated that copper induced intense proliferative changes in the stromal component of endometrial mucosa which was associated with a decrease in implantations in the respective uterine horn.<sup>6</sup>

In 1970, Chang and his associates noted that ovarian function is not inhibited and concluded that copper's effect is local because normal implantation and fetal development take place in the contralateral horn. They suggest that the actual antifertility effect involves copper inhibiting the growth and development of morulae into blastocysts and inducing a foreign body reaction. This foreign body reaction is a reflection of the decreased response of the endometrium to decidual reaction.<sup>10</sup>

In January 1973, Abraham, *et al.*, reported their observations of intrauterine copper on blastocyst and uterine lysosomes of the rabbit. Using an electron microscope, they demonstrated that the entry of copper ions into lysosomes of blastocysts resulted in the release of lysosomal enzymes, cellular autolysis, and death of the affected cells. As copper builds up in the epithelial cells, these cells tear away from the mucosal surface. They propose that this may be a protective mechanism. Abraham also admits to the possibilities proposed by other investigators: (1) copper is directly toxic to the blastocyst; (2) the metal acts primarily on the uterus; (3) copper increases uterine motility resulting in accelerated ova transport; (4) a biochemical change occurs in the endometrium; (5) and possibly polymorphs are mobilized, leading to a hostile environment for both sperm and blastocyst. Enzymes released by polymorphs disrupt the blastocyst.<sup>11</sup>

Nilson, in March 1973, published his scanning electron microscopic studies. He observed the

effect of the copper "T" on human uterine epithelium. During the secretory stage, apical processes of glycogen and its degradation products normally protrude from the luminal epithelium. Endometrial biopsies of women with copper "T" devices fail to demonstrate these protrusions. This gives support to the possibility that copper interferes with the secretion of carbohydrates by the luminal epithelium at the time of implantation.<sup>12</sup>

In February 1974, Hawk and associates observed that copper is a dissociating agent of liver and endometrial polysomes. They originally believed that this may be reflected as an impairment of normal protein synthesis processes, but in *in vitro* studies, 915  $\mu\text{gm}$  copper/Gm weight were needed to produce this effect and endometrial levels only reached 1.7  $\mu\text{gm}$ . They were also concerned about systemic toxicity as 20-25 mg. of copper is removed per year. Some of the copper is deposited in the liver, but 0.3mM is needed to dissociate these polysomes and this level is "not likely to be reached." Most of the copper is probably released or removed during menses, but this has not been measured.<sup>14</sup>

Finally, in February 1974, Salgo and Oster<sup>15</sup> demonstrated the need of copper for the biosynthesis of prostaglandin F 2 alpha which causes pronounced uterine contractions in the rat. Copper stimulation of prostaglandin F 2 alpha may be a possible mechanism.

As previously stated, the mechanism of contraceptive action of intrauterine devices is basically unclear. Many theories have been proposed to explain the antifertility effect of copper. There probably are multiple mechanisms involved.

### The Copper "7" IUD

There are many studies concerning copper as an intrauterine contraceptive, but very few studies have been reported to date concerning copper and the use of polyethylene as a carrier in the form of a "7". In November of 1973, Gibor of Searle Laboratories published his findings concerning the copper "7" intrauterine device. In emphasizing the importance of sounding the uterine length, the author divides his patients

into three groups based on sounding measurements. Certain generalizations can be made from his data: patients with uterine length of less than 6.5 cm. are more likely to expel devices and become pregnant. Less adverse effects are seen with increasing uterine length. At greater uterine lengths (over 7.5 cm.) there is a decrease in removal rates and drop out rates. Both a decrease in parity and a small uterus are two independent factors involved in the increased rate of expulsion. As a result, clinicians may use uterine length, as determined by sounding, to dictate which patients will use copper "7" and project how well this device will be tolerated with a high degree of efficiency in each individual.<sup>19</sup>

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## Annual Meeting Information

See pages 404, 421, 426d, 447 (map), 450, 454, 457, 459



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**DESCRIPTION:** Methyltestosterone is 17 $\beta$ -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post pubertal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia, particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency 10 to 40 mg.; Postpubertal cryptorchism, 30 mg. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250.

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*Despite much educational effort by infectious disease specialists, antibiotics are overused and misused. The physician must become familiar with the basic principles of their use. Such principles and their application are discussed. It is hoped that by applying these principles to everyday patient care, more appropriate use of antibiotics will result.*

## Antibiotics in Primary Care: Uses and Misuses

**Richard H. Rapkin, M.D.**  
**Green Brook\***

This year (1975) is the 33rd year that antibiotic agents have been available for use in primary patient care. These drugs have contributed to the reduction and elimination of the serious consequences of many infectious diseases, and are among the most commonly prescribed medicines. There is no medical or surgical specialty which eschews their use, and most physicians have considerable experience with them. It is remarkable, therefore, that recently there have been several published papers<sup>1-5</sup> whose thesis has been that antibiotics are overused and misused, and, even more surprisingly, that the authors of these articles are specialists in infectious disease. It is in most specialty areas that one finds greatest use of specialty drugs (e.g. psychiatrists and psychotropic drugs; cardiologists and digitalis preparations). Why should infectious disease people suggest more restrictive use of antibiotics?

Answers to this question are found in a careful reading of these papers and others.<sup>6-12</sup> Data are presented there which allow conclusions to be drawn regarding effectiveness of antibiotics, as well as dangers of their use. These data do support the general thesis: antibiotics are overused and misused.

The purpose of this communication is to review the principles of proper use of antibiotics. Pertinence to primary practice will be stressed. In addition, questions will be explored which primary care physicians complain are often ignored, such as: "How can one convince the patient that he does not need an antibiotic?"

### Principles

To present principles for antibiotic use and

avoidance of misuse, a series of hypothetical questions are presented below. The answers to the questions demonstrate the principles involved.

A. "Does my patient need an antibiotic for effective treatment of his problem?" (Table I)

Table I

*"Does my patient need an antibiotic?"*

Principles:

1. The safest plan for an infected patient may not necessarily mean giving an antibiotic.
2. Fever of unknown origin should not be treated blindly.
3. Determining the site of infection is essential in choosing appropriate therapy.

According to most reviewers this is the "sixty-four dollar question." That most viral disease and diseases of non-infectious origin are unaltered by antibiotics is agreed. The problem is which patient has a treatable infection and which not. Unfortunately, many physicians, instead of trying to find out, assume that the safest course is to give the patient an antibiotic. Implicit in this assumption is the belief that antibiotics are relatively innocuous. This is frighteningly incorrect (see H).

How can one define which patient has viral or non-infectious disease?

Although there are instances where this may be impossible it is not always that difficult for an experienced clinician. Two separate questions are involved: "Is it infectious?" and "If it is infectious, is it treatable with antibiotics?"

\*Dr. Rapkin is Associate Professor of Pediatrics at Rutgers Medical School, CMDNJ, Piscataway, and Director of Pediatric Clinical Services at Raritan Valley Hospital in Green Brook, a unit of CMDNJ.

Most acute febrile illness is infectious, and the problem is thereby simplified for the primary physician. Those febrile illnesses which are not infectious often demonstrate their nature during careful follow-up. For this reason the principle of modification is so important. (see D). Fever of unknown origin, usually implying a prolonged and perplexing febrile illness, is often non-infectious and is not helped by experimentation with sequential courses of various antibiotics.<sup>13</sup> Those infectious illnesses in which fever is absent usually have a symptom complex which establishes their identity (e.g. vomiting and diarrhea in acute infectious gastroenteritis).

The second question ("If infectious, is it treatable?") depends upon the clinical determination of the site of infection and the organisms usually responsible for infections at that site in the age group under consideration.<sup>14</sup> The site of infection is determined by careful history and physical examination and the precision of its definition is both the hallmark of the good clinician and the cornerstone of the answer to this question. For, if the site is correctly defined, the physician needs access to a fact sheet,<sup>15,16</sup> to know which possible etiologic agents to consider, and how to assess which specific agent is involved. If, for example, the patient has febrile laryngitis and is an adult, the clinician can find out that the only etiologies are viral and, therefore, avoid antibiotic use. There will be further discussion of this later (see F below) when a scientific approach to the treatment of infections is presented.

B. "Which antibiotic(s) are indicated for treating my patient?" (Table II)

Having assessed the site of infection, the possible etiologies, and begun the definition of the specific etiology (by culture, and so on) a choice of antibiotic agent, if any is needed, must be made. Reference to another fact sheet<sup>17</sup> is essential, but an understanding of how such a list of drugs of choice is constructed will help the clinician make more appropriate choices.

The prescriber of a drug must be thoroughly familiar with its pharmacology. How well is it absorbed by whatever route of administration? How is it distributed in the body? Will it get to the infection site? How is it excreted? What is its

Table II

"Which antibiotic (s) are indicated?"

Principles:

1. Know pharmacology and drugs of choice.
2. Use old familiar agents rather than new.
3. Most infections are caused by single agents, therefore,
4. Best treatment is usually a single, narrow spectrum drug.
5. Growth of an organism in culture may not necessarily have clinical relevance.
6. Clinical response is most important.
7. The antibiotic must reach the etiologic agent.

toxicity and how does one avoid or minimize same? What is the appropriate dosage?

Because pharmacologic data take time to learn and understand, the physician should use old reliable drugs in preference to newer less well understood agents. This is a basic medical principle, which, unfortunately, is constantly being undermined by aggressive advertising. The careful clinician will use what he is familiar with rather than attempting to become a "jack of all trades and master of none."

In addition to the specific drug pharmacology, the clinician should be familiar with the relative merits of each drug against the agent(s) in question. He will, in general, choose the bactericidal agent because it depends less on host response (see C) and will choose the cheaper of equivalent drugs to reduce the cost impact of the illness.

While defining the specific etiology by culture and other methods, the patient may require coverage of several possible treatable etiologies and this may require more than one drug. In general, most infections are caused by single agents (a notable exception are infections involving anaerobes, e.g., lung abscess). It is now well accepted that most single agent infections are best treated with a single drug, usually one with a narrow spectrum. Broad spectrum drugs cause greater alteration of normal flora than narrow spectrum ones, and this appears to be potentially harmful (see H).

When culture results are known, one should modify therapy to treat the defined etiologic



agent according to its sensitivity. Unfortunately, the growth of an agent in culture media does not necessarily indicate its etiologic relevance. One must be aware of the normal flora of the site cultured, e.g., growing pneumococcus from the nose of a patient with pneumonia has little clinical significance. Also, one should be loathe to change an effective regimen (one to which the patient has seemed to respond) when cultural data do not agree with clinical assessment. This is a grey area that requires much experience, but the basic principle of a clinician should be to rely more on his clinical judgment than any single piece of laboratory data.

The agent must get to where the infection is. The fact that an organism is sensitive to an agent which is effective, inexpensive and nontoxic, is of no value if the agent is incapable of diffusing to where it is needed (e.g., cephalosporin is of no value in pneumococcal meningitis since it does not diffuse well into the cerebral spinal fluid).

C. "Are there other things which should be taken into account in treating the treatable?" (Table III)

Table III

*"What else should I consider?"*

Principles:

1. Debride devitalized tissue, drain abscesses, and remove foreign bodies.
2. Identify the compromised host and support his defenses.
3. Make sure dosage, route of administration, and duration of therapy are appropriate.

Even if the cultural data are relevant and the chosen drug capable of reaching the area involved, several other factors are important in the successful treatment of treatable infections. Foreign bodies, closed space pus, and devitalized tissue will interfere with antibiotic effectiveness. These problems need urgent attention and should be thought of in treatment failure. Debridement, drainage, and removal of foreign bodies were, in the pre-antibiotic era the major modalities of treatment. They are no less important today.

The host with compromised defenses, a more frequent problem nowadays, presents a signifi-

cant challenge to the clinician. The principle here is that although one may choose the appropriate drug, the therapy is often ineffective unless one can improve the defense capability of the host. Drug selection is more difficult since the variety of organisms capable of producing disease in the compromised host is much more diverse than in the normal host, and includes bacteria and fungi not usually pathogenic and often very resistant to usual antibiotic agents. Despite the use of bactericidal drugs, which are essential in the host with altered defenses, failure is common because the usual "mop-up" operations performed by the host are altered by the underlying disease. An example is the treatment of pseudomonas sepsis in the granulocytopenic patient. Therapy is made much more effective if, along with appropriate antibiotics, granulocyte transfusions can be given.

Finally, three items of significance: dosage, route of administration, and duration of therapy. Here again, the site of infection is critical. A pneumococcus in the lung needs far less penicillin for a shorter time than when the organism reaches the meninges. One must be sure that the dosage is not too great (see ecology — H) nor too small, the duration not too long nor too short and so on. The belief that if some is good, a lot may be better, has no place in antibiotic use. Antibiotics are a double-edged sword. Too little leads to treatment failure; too much leads to superinfection and toxicity.

A major pitfall that the clinician needs to avoid is the reduction in dosage or alteration in route of administration when the patient appears to have improved. This is often the time that dosage needs increasing since inflammation may have subsided, and blood supply to the infected area reduced.

D. "Isn't it correct that once I begin therapy I must continue for a 'full course'?" (Table IV)

The answer to this common question is unequivocally *no!* There are many reasons for beginning antibiotic therapy which become inoperative when additional data are available. Any time one uses potent drugs with toxicity, great cost, and other detriments, one must have good reason for continuation. A major principle of antibiotic use, therefore, is to modify initial

Table IV

*"Can I stop antibiotics before completing the course?"*

Principles:

1. Modify initial decisions on basis of clinical and cultural information.
2. In life-threatening infections, begin treatment with broad coverage and narrow down when etiologic data become available.
3. Stop unnecessary drugs.

decisions on the basis of information: clinical and cultural. Although one may err in an initial estimate of what's wrong and what to do about it, repeated observations and tests often clarify the situation. With clarification, initial decisions are modified, plans changed, etc. This is no less true in the treatment of infections. One fear of the clinician is that his patient may be overwhelmed with an infection before he has made his diagnosis. He, therefore, wishes to begin therapy with broad coverage, before any data are available. This is an appropriate course of action, but the physician should modify his therapeutic decisions as data are available to support or undermine his initial orders. There is no danger in stopping a drug which is unnecessary. There is much danger in continuing it.

E. "Even if my patient doesn't have a treatable infection, won't I help prevent secondary infection by giving him antibiotics prophylactically?" (Table V)

Table V

*"Aren't antibiotics good prophylaxis?"*

Principles:

1. Infection caused by single species of organism of known and constant sensitivity can often be prevented.
2. Infection caused by a variety of organisms usually cannot be prevented by prophylaxis.
3. Self-medication is dangerous.

The answer here is usually not. Prophylaxis has been recently discussed in detail.<sup>18</sup> The principles of prophylaxis are that one can prevent infection by single organisms of known and constant sensitivity, but one cannot prevent infection by a variety of organisms or ones with varying sen-

sitivity. It is usually fruitless, for example, to try to prevent pneumonia or sepsis, because these diseases are caused by several kinds of organisms with divergent sensitivities. By giving an antibiotic, in the hope of preventing complications, one destroys the sensitive organisms, leaving the flora resistant to the antibiotic. This residual flora then is just as likely to produce the feared infection, and will be more difficult to treat.

On the other hand, it is not impossible to prevent streptococcal pharyngitis. Here, the organism is sensitive to penicillin, which can prevent colonization and subsequent infection if given prior to exposure.

The antibiotics we use are not antiseptics; they cannot eliminate all bacteria. Their use leads to destruction of sensitive bacteria. Resistant bacteria remain and fill the void, essentially replacing normal flora, and become the reservoir for infection (see ecology and superinfection — H). Studies have failed to demonstrate value in treating the untreatable in the hope of preventing the treatable. All that one does is make the treatable less easily treated!

Patients become confused and accept the belief that antibiotics are an umbrella. They will often self-medicate with incompletely used prescriptions. This dangerous practice should be discouraged. The umbrella is leaky, and often is dangerous in its own right (e.g., nephrosis from use of outdated tetracycline).

F. "How shall I alter my antibiotic prescribing habits?"

A scientific approach to the patient with infectious disease has been described; it consists of six simple steps, which allow a rational decision-making process when applied to clinical situations. The steps are:

1. Define whether the patient has an infection.
2. Define the site of infection.
3. Determine, by reference to a fact sheet, what etiologies are commonly associated with infection at this site in this age group.
4. Establish the specific etiology by appropriate diagnostic tests if possible, but do not necessarily wait for the test results to begin therapy.

5. Begin therapy by covering the common etiologies with *appropriate* antibiotic(s).

6. Modify the therapeutic decisions by clinical re-evaluation and data obtained from Step 4 above.

G. "I'm not an academican and, although I understand what you say, I am not convinced that my patient will accept this. What can I tell my patient?"

The problem here is that the busy clinician often does not have time to tell the patient much of anything. A prescription is a much simpler message! The facts are that the patient will accept and even encourage the avoidance of unnecessary drugs if the clinician will take the time, early in his relationship with the patient, to explain why he is doing what he is doing in a way which shows his own self-confidence. Personal practice experience of many clinicians has shown this to be so.<sup>19</sup> If the clinician believes what he is doing to be correct, he will be able to convince the majority of his patients.

In Somerset County<sup>20</sup> pediatricians became convinced that their patients with pharyngitis should be cultured for streptococci and, with occasional exceptions, treated only after cultural demonstration of such organisms. Soon, irate parents were asking local internists why their children were often being treated symptomatically for self-limited, non-streptococcal pharyngitis, and why they were regularly receiving an expensive course of antibiotics without the benefit of culture. Some pediatricians were complaining, at the same time, that parents were refusing to accept antibiotic prescriptions for their children unless cultures were done, even in clinically unequivocal scarlet fever!

H. "What are the dangers of antibiotic therapy?" (Table VI)

Aside from toxicity, allergic, and idiosyncratic reactions to drugs, the major dangers relate to ecology and superinfection.<sup>21</sup> In 1952, Smith<sup>6</sup> first discussed the effect of antibiotics on ecology. He observed that bacteria and fungi produced substances which poison their competitors. He also noted that bacteria may be able to consume all available food or foul the environment with their metabolic wastes which might prevent the growth of others. Smith

Table VI

"What are dangers of antibiotic therapy?"

Principles:

1. Antibiotics are toxic.
2. Antibiotics may damage normal flora.
3. Normal flora may prevent colonization of abnormal flora.
4. Infections with abnormal flora may follow antibiotic disruption of normal flora.
5. Superinfection least likely if primary infection is treated with the lowest effective dose, for the shortest effective time of the narrowest spectrum drug.

pointed out that differential rates of growth may be an important factor in one or another organism establishing itself preferentially and concluded that the commensal flora of man may prevent the establishment of parasitic species and that secondary infections may follow antibiotic disruption of normal flora.

Further studies on the alteration of normal flora by antibiotics have concluded that the alteration of normal flora is directly proportional to the broadness of spectrum and the dose of the antibiotic and the duration of therapy. These three factors are also directly related to the superinfection rate (a superinfection is an infection which occurs secondarily). The principle then is to use the lowest effective dose of the appropriate single narrow spectrum drug for the shortest possible time associated with effectiveness in order to reduce the damage to normal flora and reduce the superinfection rate.

Conclusion

In 1954, Dr. Louis Weinstein, discussing antibiotics, stated the following:<sup>22</sup> "The administration of an effective antibiotic agent to a patient with an infectious disease, in addition to eliminating the causative organisms, produces a profound alteration in the composition of the bacterial population that normally inhabits certain tissues and organs. This by-product of chemotherapy is frequently of no clinical consequence, but, on occasion is responsible for the superimposition of a serious infection on the one for which treatment was initially instituted.



The organs involved in the superinfection are most frequently the same as those affected in the primary disease.

The appearance of superinfection during the administration of an antibiotic may convert a benign, self-limited disease into a serious, prolonged, or even fatal one.

The data obtained . . . emphasized the danger of antibiotic therapy in diseases that are not treatable since superinfection, which may be a very small risk in the untreated infection, may become a serious threat."<sup>22</sup>

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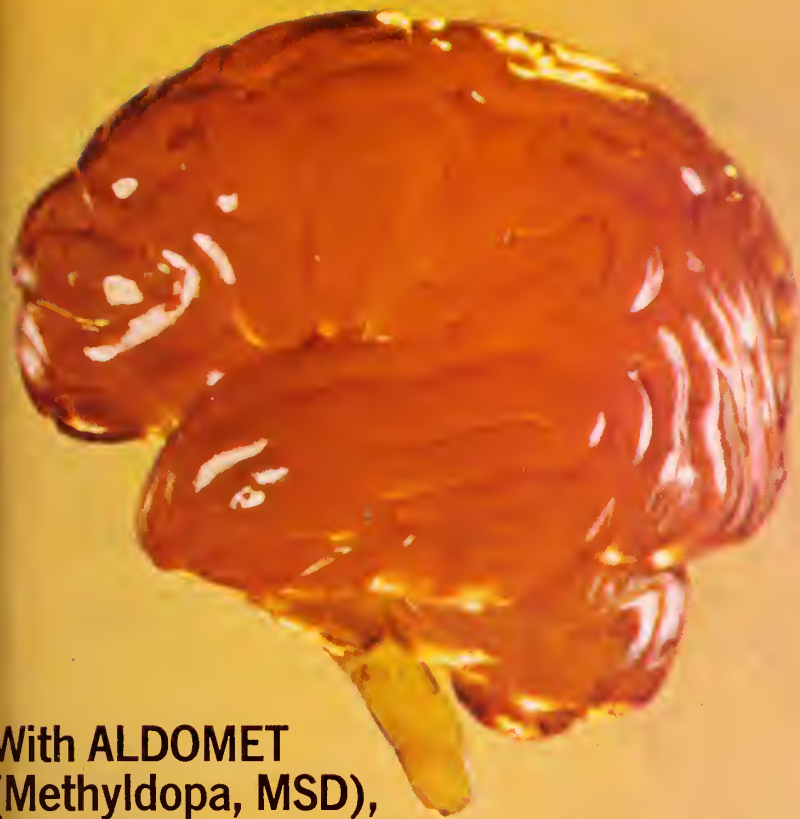
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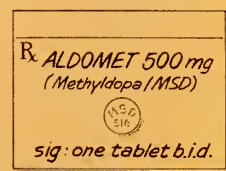
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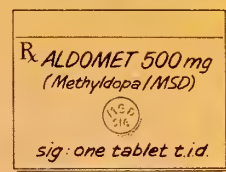
Now offered in addition to the standard 250-mg tablet, the new ALDOMET 500 mg tablet is a patient convenience. An especially important one, since in hypertension convenience of the dosage schedule is one factor that can make the difference in compliance of the patient. The minimum daily dose of ALDOMET is 250 mg b.i.d. The usual starting dose is 250 mg t.i.d. Dosage is adjusted as necessary by adding or deleting 250 mg or 500 mg at intervals of not less than two days. The maximum dose is 3.0 g per day.

Examples of b.i.d. or t.i.d. dosage convenience provided by ALDOMET 500 mg within the usual daily dosage range of 500 mg to 2.0 g:

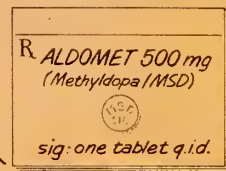
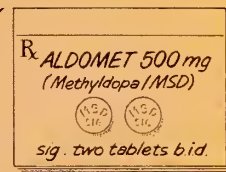
1.0-g  
daily  
dose =



1.5-g  
daily  
dose =



2.0-g  
daily  
dose =



NOTE: Tablets shown are not actual size.

or a brief summary of prescribing information, please see following page.



in sustained moderate hypertension

**ALDOMET<sup>®</sup>** (METHYLDOPA|MSD)

usually lowers blood pressure effectively



**Contraindications:** Active hepatic disease, such as acute hepatitis and active cirrhosis. Known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

**Warnings:** It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between six and twelve months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at six and twelve months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect

Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first six to twelve weeks of therapy or whenever an unexplained fever occurs. If fever, abnormalities in liver function tests, or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur.

**Use in Pregnancy and Childbearing Age**—Not recommended in pregnancy. In women of childbearing age, weigh potential benefits against possible fetal hazards.

**Precautions:** Methyldopa may interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has occurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

**Adverse Reactions:** Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure are occasionally seen and include dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency. Angina pectoris may be aggravated. Symptoms of orthostatic hypotension may occur if symptoms occur, reduction of dosage is suggested. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distention, constipation, flatulence, and diarrhea occur occasionally; these generally can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue, "black tongue," pancreatitis, and inflammation of salivary glands may occur.

Weight gain and edema occur infrequently and are relieved by administering a thiazide diuretic. If edema progresses or signs of pulmonary congestion appear, discontinue drug. A rise in BUN has been observed. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, Bell's palsy, parkinsonism, psychotic disturbances including nightmares, reversible psychosis or depression. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

**Note:** Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Maximal recommended daily dose is 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncopal attacks in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

**How Supplied:** Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your local representative or see full prescribing information, Merck Sharp & Dohme, Division of Merck & Co., West Point, Pa. 19486

**MSD** MERCK SHARP & DOHME

*Optimal holistic care of geriatric patients must be approached from two directions simultaneously — care of somatic disorders and care of declining mental capabilities. When both of these infirmities coexist (which is the usual clinical situation) dealing with only one will frustrate the prospect of a satisfactory therapeutic response. Pharmacologic and other therapeutic modalities are available to aid geriatric patients in both areas. Appropriate ego-supportive activities and environmental manipulative measures are needed for our aging patients. Such a multi-disciplinary approach can best help geriatric patients to fulfill their potential.*

## Mental Aging in the Geriatric Patient

### Implications for Holistic Management

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**Herbert J. Rosen, M.D./Dover\***

#### Aging . . . Toward a definition

"Aging" is a phenomenon with which every one of us fortunate enough to accumulate sufficient birthdays becomes increasingly involved, whether we like it or not! Consequently, exactly what senescence represents physiologically is a matter of universal concern. If we hope to deal more rationally and effectively with the less desirable consequences of advancing years, a continuing acquisition of knowledge about the factors involved in aging and how these factors interrelate is essential.

One significant stumbling block to a fuller understanding of this subject is a general semantic confusion. Just what is actually meant by the term "aging?" As any physician who treats geriatric patients knows, the clinical picture such people present are characteristically diverse; the word "aging," at one time or another, has been used to designate almost any portion of this variable clinical complex. It seems necessary, therefore, to establish a less ambiguous operational definition of the term "aging."

When one analyzes the medical complaints of the average non-acutely-ill geriatric patient, his clinical symptomatology can generally be divided into two major categories — those problems ascribable to recognized, specific chronic diseases (such as arthritis, hypertension, diabetes, parkinsonism, and so on), and those that do not seem to conform to any clearly understood clinical patterns.<sup>1-4</sup> There is a practical advantage if we consider only this latter group of

degenerative-type changes — apparently all time-related, though poorly defined or understood — as the symptomatology of "aging," per se.

This classification<sup>5</sup> is admittedly artificial and rather variable for, at any given point in time, it does no more than pragmatically separate those specific disease entities that are currently clinically-recognizable, from the remaining group of less understood geriatric impairments. Nevertheless, it does serve a clinically-useful purpose. Since we know that geriatric patients with specific chronic diseases generally respond as successfully to appropriate conventional treatment as do younger adults, this approach provides the physician with basic and immediate patient-management and prognostic guidelines. He can thus form a prompt working judgment about those aspects of his elderly patient's condition which may be specifically benefited by traditional medical therapeutic measures and to what realistic extent he and his patient can expect clinical improvement of those disorders.

#### Mental Aging

The most clinically-unrewarding facet of geriatric care has historically and understandably been the management of the problems of "aging" per se; of these, the most common and frustrating problems of all have been those associated with "mental aging." The clinical findings in "mental aging" are generally those representing manifestations of inefficient

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\*Dr. Rosen is Chief of the Department of Medicine, Dover General Hospital, Dover, New Jersey.



cerebral function and ability, *eg.*, confusion, impaired recent memory, and mental "slowness," and their usual behavioral and emotional concomitants, such as lack of motivation, unsociability, irritability, and a depressed attitude. In some cases, such symptoms may overlap or be readily confused with expressions of specific organic disease or mental illness. Yet, in most instances, careful medical and psychiatric evaluations will not reveal any specific causally-related physical or psychiatric disorder.

### Etiological Considerations

Until recently it has been customary to regard the etiology of "mental aging" to be the progressive reduction in cerebral circulation generally associated with cerebral arteriosclerosis. Indeed, so commonly did the medical profession simply take this relationship for granted, that it was not unusual for terms such as "mental senility," "chronic cerebrovascular insufficiency," or "cerebral arteriosclerosis" to be used interchangeably.<sup>6</sup> Recently, however, this hemodynamic view of geriatric brain failure has found itself subject to serious question.

During the past two decades, a number of studies were undertaken to determine the precise relationship between the degree of impairment of cerebral blood flow and the degree of mental impairment exhibited by the patient. No consistent correlation between these two parameters was uniformly found,<sup>7,8</sup> not only from study to study, but, in some instances, even from patient to patient within the same study. While many older patients were found to have both reduced cerebral circulation and reduced mental function, some showed no mental impairment despite measurably reduced blood flow in the brain; others exhibited prominent degenerative mental changes co-existing with normal cerebral circulation.

It appears that, within certain physiologic limits, mental senescence is not necessarily causally nor solely related to reduced cerebral blood flow.

### Treatment and Management Guidelines (Holistic Approach)

Modern pragmatic management of the geriatric patient must be directed to the medical treat-

ment of his specific chronic somatic diseases, for much can be done for him. Medical treatment should not end there! It must also deal with his problems due to "aging," especially "mental aging." In this regard, there are specific pharmacologic agents for the treatment of mental aging and these should be used, where appropriate, to help the patient with a senescent brain.<sup>9-11</sup>

Above all holistic care of the geriatric patient with both somatic disorders and failing mental capacities must emphatically take into consideration the functioning and behavior of the *entire* individual, if it is to succeed.<sup>12</sup>

### Role of Ego-Supportive and Ego-Restorative Factors in "Mental Aging"

Ego-supportive techniques and control of environmental factors are necessary corequisites to any specific therapeutic program for the geriatric patient. In many instances such measures alone will often bring about considerable clinical improvement in the elderly patient with failing mental capabilities!

In my experience, the ideal setting for treatment of mentally aging geriatric patients is within the community and, preferably, within the normal family unit. There are obviously times when institutionalization is unavoidable and, in such instances, the physician should carefully assess the particular institution being considered. He should bear in mind that placement of his patient in an environment where he will receive little more than anonymous custodial care, and where he will be completely excluded from normal, productive, decision-making life situations, may completely negate any potential benefits of medication or other conventional treatment efforts. In contrast to this depersonalizing and demoralizing institutionalization, a well-managed facility may provide elderly patients with individualized attention and understanding psychotherapeutic management.

Even in a home situation, the geriatric patient must have a stimulating environment and a daily schedule of appropriate activities. One cannot realistically expect the most effective pharmacologic or other treatment modality to counteract the deadening effects of doing little



else but sitting in a rocker in a remote corner of a room, facing an unseen TV screen, with no feeling of personal usefulness or involvement in the ongoing dynamics of life about one. Any positive treatment program at home must be based on an understanding evaluation of the situation and appropriate education or orientation of the patient's immediate relatives and/or close friends. This orientation should emphasize the (unfortunate) fact that growing old in our youth-oriented culture is characteristically accompanied by a progressive and cumulative loss of an individual's ego supports, — generally stemming from his decreasing economic importance, his waning physical capacities, and his diminishing social roles — and that this attritive process must be arrested and counteracted within the practical limits of the individual case.

Total management, therefore, must include maintaining and expanding the aging person's ego-supportive roles and his sense of involvement to the greatest extent possible in his particular situation. One may encourage the older person to participate in appropriate productive tasks around the house, at a hospital, historical museum, or wherever there may exist an opportunity for him to be active in a manner and to a degree compatible with his existing potential. His contribution should be a real one, for "make-work" projects or meaningless activities would simply tend to confirm to most elderly persons that their fears of being useless are justified. In turn, this can result in a further loss of his dignity and self-esteem, a consequence which can be highly destructive to both his physical and mental health. It should also be remembered, in this context, that recreational activities, while unquestionably important to the aged, may lose their positive impact unless they are interspersed with productive or useful-to-others type of activities, as well.

A special consideration, which can be crucial to the older person in our decentralized highly suburban culture, is the matter of transportation. The availability of some means of getting from one point to another, at his option, or on a regular noncompromising basis, can materially aid the aging patient to maintain much of his former mode of life and his mental health. Local governments or agencies can do much by setting

up customized mini-bus services, especially between residential areas and the town centers.

Another important but often neglected source of special ego-support for older persons is their interrelationship with young children and particularly their own grandchildren. Such contacts answer vital emotional needs for both the grandparents and the grandchildren and should be encouraged. Those parents who, in the maelstrom of modern life, overlook or neglect to take advantage of opportunities for such relationships are not only contributing to an increasing isolation and sense of abandonment in their aging parents, but are also depriving their own children of a wonderful and nurturing life experience.

### Summary

It should be emphasized that optimal holistic care of geriatric patients must ideally be approached from two directions simultaneously — the care of their varied and separable somatic disorders and the care of their declining mental capabilities. When both of these categories of infirmity co-exist in the same aging individual, which is the usual clinical situation, dealing with only one of these problems and neglecting the other will almost certainly frustrate the prospect of a truly satisfactory therapeutic response!

Physicians have available and should use pharmacologic and other therapeutic modalities, to aid geriatric patients in both of these areas. They must recognize the critical help that appropriate ego-supportive activities and environmental manipulative measures can provide our aging patients. Such a multi-disciplinary approach to geriatric care can best help these patients to fulfill their full and deserved human potentials!

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77 Union Street

### The Surgeon's Assistant\*

The assistant to the surgeon should be a skilled person qualified by academic and clinical training to provide patient services under the supervision and responsibility of a surgeon who in turn is responsible for the performance of that assistant. The assistant may be involved with the patients of the surgeon in any medical setting for which the surgeon is responsible.

The function of the assistant to the surgeon is to perform, under the responsibility and supervision of the surgeon, diagnostic and therapeutic tasks in order to allow the physician to extend his services through the more effective use of his knowledge, skills, and abilities. The assistant to the surgeon will not supplant the surgeon in the sphere of the decision-making required to establish a diagnosis and plan therapy, but may assist in gathering the data necessary to reach the decision and in implementing the therapeutic plan for the patient.

Intelligence, the ability to relate to people, a capacity for calm and reasoned judgment in meeting emergencies, and an orientation toward service are qualities essential for the assistant to the surgeon. He must maintain respect for the person and privacy of the patient.

The tasks performed by the assistant will include transmission and execution of the surgeon's orders, performance of patient care tasks, and

performance of diagnostic and therapeutic procedures as may be delegated by the surgeons.

The ultimate role of the assistant to the surgeon cannot be rigidly defined because of the variations in practice requirements due to geographic, economic, and sociologic factors. The high degree of responsibility an assistant to the surgeon may assume requires that at the conclusion of this formal education he will possess the knowledge, skills, and abilities necessary to provide those services appropriate to the surgical setting.

The surgeon's assistant may become highly trained and specialized in the areas in which his immediate supervisor has interest, i.e., thoracic or head and neck surgery, or he may remain in an area of surgery requiring a wide variety of procedures such as performed by general surgeons in a community hospital. The frequency of performance of certain duties will in part determine the degree of special expertise such an individual obtains in the care of patients. Since no one individual could participate in all the categories of work outlined, it is expected that a certain degree of limitation will occur.

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\*From "Essentials of an Approved Educational Program" established by the American Medical Association's Council on Medical Education in collaboration with the American College of Surgeons.

# Synthroid<sup>®</sup>

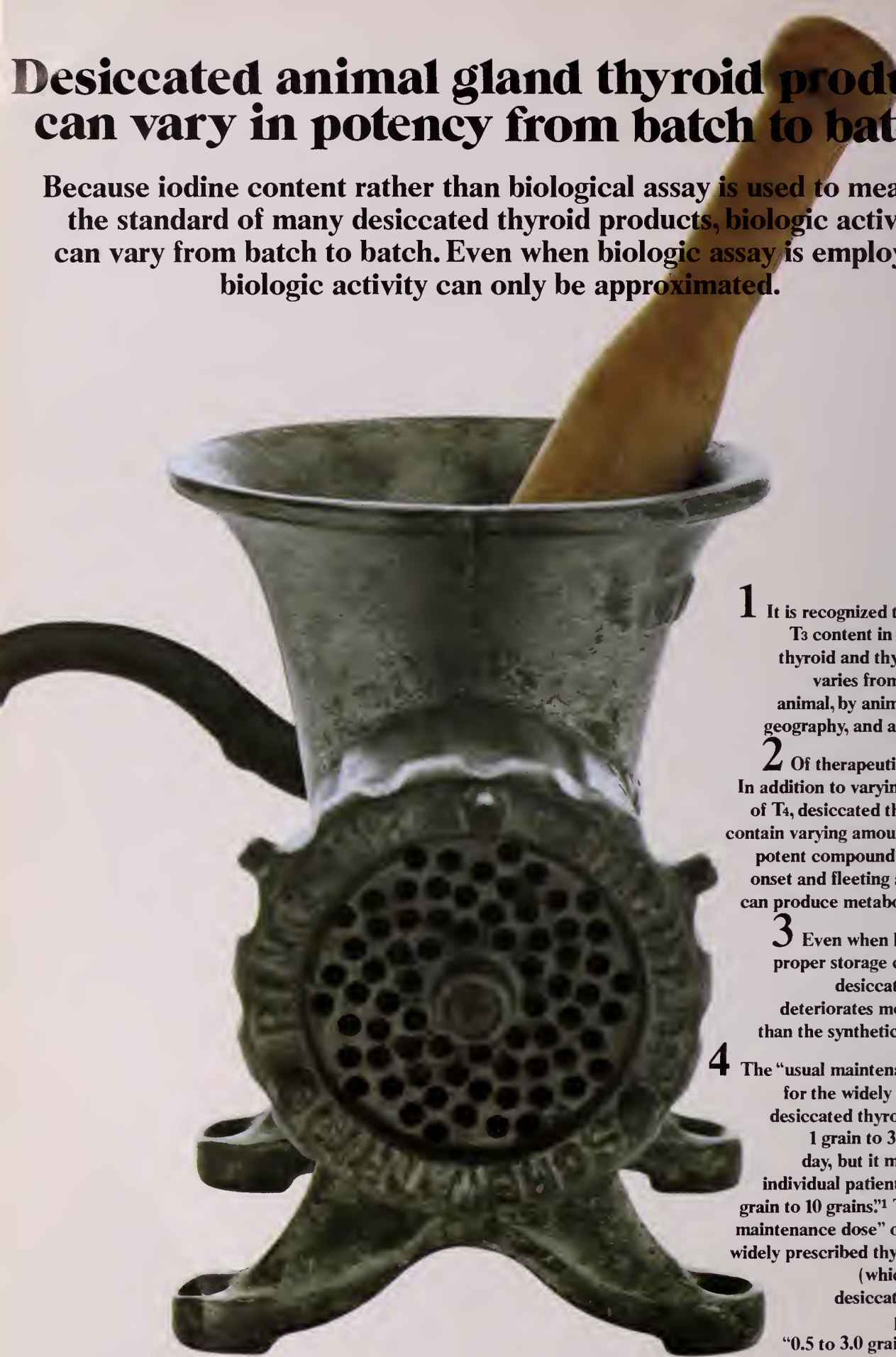
(sodium levothyroxine, U.S.P.) FLINT





# Desiccated animal gland thyroid products can vary in potency from batch to batch.

Because iodine content rather than biological assay is used to measure the standard of many desiccated thyroid products, biologic activity can vary from batch to batch. Even when biologic assay is employed, biologic activity can only be approximated.




**1** It is recognized that T<sub>4</sub> and T<sub>3</sub> content in desiccated thyroid and thyroglobulin varies from animal to animal, by animal species, geography, and animal diet.

**2** Of therapeutic concern: In addition to varying amounts of T<sub>4</sub>, desiccated thyroid may contain varying amounts of T<sub>3</sub>, a potent compound with rapid onset and fleeting action that can produce metabolic surges.

**3** Even when kept under proper storage conditions, desiccated thyroid deteriorates more rapidly than the synthetic hormone.

**4** The "usual maintenance dose" for the widely prescribed desiccated thyroid is "from 1 grain to 3 grains per day, but it may vary, in individual patients from 1/2 grain to 10 grains."<sup>1</sup> The "usual maintenance dose" of the most widely prescribed thyroglobulin (which is also a desiccated thyroid product) is "0.5 to 3.0 grains daily."<sup>2</sup>



# Every batch of Synthroid® T<sub>4</sub> is of controlled potency. (sodium levothyroxine, U.S.P.) FLINT

**SYNTHROID is T<sub>4</sub>. It provides your patients with everything they need for complete thyroid replacement therapy.**

**1** Sodium levothyroxine is *not derived* from any animal gland source. It is a synthetic and, since sodium levothyroxine is the only active ingredient, its weight is the sole determinate of potency.

**2** SYNTHROID (sodium levothyroxine) is T<sub>4</sub> which is converted by the patient to T<sub>3</sub> at the cellular level, thereby providing a physiologic source and amount of T<sub>3</sub> to meet metabolic needs for complete thyroid replacement therapy. Because the onset of effect is slower and more steady, the possibility of sudden metabolic surges is reduced with SYNTHROID therapy.

**3** SYNTHROID (sodium levothyroxine) products have a longer and more reliable shelf life than Thyroid U.S.P. when kept under the same proper storage conditions. There is no animal protein present in SYNTHROID products.

**4** A recent study of 44 patients with hypothyroidism indicates that 89 percent of the patients were maintained with doses of L-thyroxine (SYNTHROID) between 100 mcg. and 200 mcg. (0.1 mg. and 0.2 mg.) per day.<sup>3</sup>

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**Eliminates many  
of the uncertainties of  
desiccated thyroid therapy.**

**Synthroid®**  
(sodium levothyroxine, U.S.P.) FLINT



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Deerfield, Illinois 60015

See reverse side for full prescribing information.



# Synthroid®

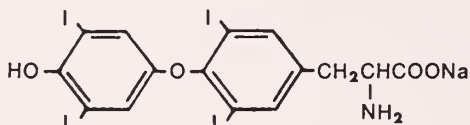
(sodium levothyroxine, U.S.P.)\* FLINT

**Synthroid Tablets**—for oral administration  
**Synthroid for Injection**—for parenteral administration



## Description

SYNTHROID (sodium levothyroxine) Tablets and SYNTHROID Injection contain synthetic crystalline sodium levothyroxine (L-thyroxine). L-thyroxine is the principal hormone secreted by the normal thyroid gland.



Sodium Levothyroxine

## Actions

SYNTHROID (sodium levothyroxine) Tablets, taken orally, provide hormone that is readily absorbed from the gastrointestinal tract. SYNTHROID Injection is effective by any parenteral route. Following absorption, the synthetic L-thyroxine provided by SYNTHROID products cannot be distinguished from L-thyroxine that is endogenously secreted. Each is bound to the same serum proteins and each exhibits a six to seven day circulating half-life in the euthyroid individual.

Both SYNTHROID products will provide L-thyroxine as a substrate for physiologic deiodination to L-triiodothyronine. Therefore, patients taking SYNTHROID products will demonstrate normal blood levels of L-triiodothyronine even when the thyroid gland has been surgically removed or destroyed by radioiodine. Administration of levothyroxine alone will result in complete physiologic thyroid replacement.

## Indications

SYNTHROID (sodium levothyroxine) products serve as specific replacement therapy for reduced or absent thyroid function of any etiology. SYNTHROID Injection can be used intravenously whenever a rapid onset of effect is critical, and either intravenously or intramuscularly in hypothyroid patients whenever the oral route is precluded for long periods of time.

## Contraindications

There are no absolute contraindications to SYNTHROID (sodium levothyroxine) therapy. Relative contraindications include acute myocardial infarction, uncorrected adrenal insufficiency and thyrotoxicosis. (See WARNINGS)

## Warnings

Patients with cardiovascular diseases warrant particularly close attention during the restoration of normal thyroid function by any thyroid drug. In such cases, low initial dosage increased slowly by small increments is indicated. Occasionally, the cardiovascular capacity of the patient is so compromised that the metabolic demands of the normal thyroid state cannot be met. Clinical judgment will then dictate either a less-than-complete restoration of thyroid status or reduction in thyroid dosage.

Endocrine disorders such as diabetes mellitus, adrenal insufficiency (Addison's disease), hypopituitarism and diabetes insipidus are characterized by signs and symptoms which may be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such patients may aggravate the intensity of previously obscured symptoms and require appropriate adjustment of therapeutic measures directed at these concomitant disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Patients on anticoagulant therapy should have frequent prothrombin determinations when instituting thyroid replacement to gauge the need to reduce anticoagulant dosage.

## Precautions

Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) Tablets, the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

## Adverse reactions

Adverse reactions are due to overdose and are those of induced hyperthyroidism.

## Dosage and administration

For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) Tablets daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occurs and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID Injection may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsiveness within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the oral dosage form, SYNTHROID Injection produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting a daily oral dose.

In the presence of concomitant heart disease, the sudden administration of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks. Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema coma and the cardiovascular disease. Clinical judgment in this situation may dictate smaller intravenous doses of levothyroxine.

SYNTHROID Injection by intravenous or intramuscular routes can be substituted for the oral dosage form when ingestion of SYNTHROID Tablets is precluded for long periods of time.

## How supplied

SYNTHROID (sodium levothyroxine) Tablets are supplied as scored, color-coded compressed tablets in 6 concentrations: 25 mcg (0.025 mg)—orange . . . 50 mcg (0.05 mg)—white . . . 100 mcg (0.1 mg)—yellow . . . 150 mcg (0.15 mg)—violet . . . 200 mcg (0.2 mg)—pink . . . 300 mcg (0.3 mg)—green. Depending on strength, these tablets are available in bottles of 100, 500, 1000 and 5000.

SYNTHROID (sodium levothyroxine) for Injection is supplied in 10 ml vials containing 500 mcg of lyophilized active ingredient and 10 mg of Mannitol, U.S.P. A separate 5 ml vial containing Sodium Chloride Injection, U.S.P. is provided as a diluent.

## Directions for reconstitution

Reconstitute the lyophilized sodium levothyroxine by aseptically adding 5 ml of the Sodium Chloride Injection, U.S.P. to the vial. Shake vial to insure complete mixing. Use immediately after reconstitution. Discard any unused portion.



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*Newark experiences some of the nation's severest health and welfare problems, not the least of which is tuberculosis. To gain insight into the problem, current TB data were extracted from the city registry and plotted to determine clustering patterns. As a corollary, a questionnaire was administered to fifty patients and two control groups matched for sex, race, and age. The TB patients were also studied for vitamin deficiencies and trace substance burdens. Findings reveal minimal differences between TB patients and controls in regard to general life style. Significant deficiencies in pyridoxine were noted and this may indicate a predisposition to tuberculosis-susceptibility.*

## Tuberculosis in Newark\*

**Mark A. Quinones, Ph.D.,  
Donald B. Louria, M.D.,  
James D. Foster, B.S., and  
Wayne Ledner, M.S./Newark**

Newark, New Jersey, experiences some of the nation's severest health and welfare problems. For example, Newark ranks first among cities with a population of 250,000 or more in new cases of tuberculosis with a rate of 70 per 100,000 (Table 1). As a matter of fact, Newark has had the distinction of ranking first in new tuberculosis cases among major cities for the past four years, and in all probability will continue to retain this position in the coming year.

A review of the tuberculosis problem in Newark over the last quarter of a century reveals some interesting trends (Table 2).

First of all, with the move away from cities during the last two decades, Newark's population has gradually declined over this period. Also, the number of tuberculosis deaths has declined very sharply, particularly for the period 1945 to 1955. However, this decline seems to have stabilized itself in the late 60's and early 70's. Although the new cases reported have also declined, it has not been as drastic as the mortality rate. What is of interest in terms of morbidity is that since 1960 Newark has shown very little change.

### Plotting TB Cases

To determine where tuberculosis cases tend to cluster, the active cases known to the Newark Health Department Registry over the last three years were plotted by residence.

Table 1

New Active Tuberculosis Cases in Cities of 250,000 or More Population in the United States\*

City	1972	
	Provisional No.	Case rate per 100,000
Newark	268	271
Honolulu	189	188
Baltimore	458	424
Richmond	106	118
Boston	299	285
Buffalo	144	202
Birmingham	134	120
El Paso	124	130
Jersey City	98	100
Chicago	1,385	1,256
Philadelphia	803	726
Cleveland	247	270
Houston	544	449
San Francisco	310	242
Dayton	64	80
Cincinnati	192	146
Atlanta	187	194
Detroit	620	477
Sacramento	85	81
Rochester	73	88
New York City	2,572	2,346
Indianapolis	191	218
Jacksonville	165	144
Tampa	77	74
San Antonio	196	171
St. Louis	239	155
Nashville	116	114
Austin	50	66

\*Compiled from figures from American Lung Association Data.

Politically, the city of Newark is divided into 5 major wards. A review clearly shows that the concentration and *prevalence* of tuberculosis in the city is greatest in the central ward, spilling over to the south ward and to some extent to the east ward, with the lowest concentration found in the west and north wards.

\*From the New Jersey Medical School, CMDNJ, Newark

Table 2  
Tuberculosis Mortality and Morbidity Rate (all forms)\*

Year	Population	No. Deaths	Cases Reported	Mortality	Morbidity
1945	443,000	247	495	55.8	111.7
1950	443,000	209	526	47.2	117.2
1955	443,000	68	490	15.3	110.6
1960	405,000	40	343	9.9	84.7
1961	405,000	52	372	12.8	91.8
1962	410,000	52	332	12.7	80.2
1963	410,000	46	341	11.2	83.2
1964	410,000	48	299	11.7	70.7
1965	410,000	42	355	10.2	87.6
1966	410,000	35	360	8.5	87.8
1967	410,000	36	323	8.78	78.7
1968	410,000	28	336	6.8	80.7
1969	400,000	20	282	5.0	70.5
1970	400,000	24	275	6.0	68.75
1971	400,000	18	260	4.73	68.4
1972	400,000	18	330	4.73	86.84

\*Source: Newark Division of Health, 1972 Annual Report.

A major problem encountered in attempting to demographically and epidemiologically analyze the tuberculosis problem in Newark is that tuberculosis data for the city and the state of New Jersey are not compiled by ethnicity. Therefore, at best, one can only make assumptions about tuberculosis in Newark in regard to this variable. Unless one is careful, it is easy to assume that tuberculosis here is found predominantly among the black population since the central and south wards of Newark are predominantly inhabited by black residents. To avoid this pitfall, the *new* tuberculosis cases reported in 1972 were plotted by ward and the black population estimated from available data.

The central and south wards are at least 90 percent black and their tuberculosis case rate is high (98 and 86 per 100,000 respectively) but these wards do not record the highest rate for the city. The highest rate is recorded in the east ward (rate of 120 per 100,000) despite the fact that the population here is only approximately one-third black. One explanation may be that the east ward is a highly industrial area and also has a highly transient population. It also has significant pockets of ethnic groups such as Spanish, Portuguese and Polish.

#### Profile of TB Cases

In further search for answers to the tuberculosis problem, a questionnaire was administered to 50 patients with tuberculosis at the Martland

Hospital, the hospital used by most of the indigent black population of Newark. In addition, two control groups were selected: the first was 50 patients on medical floors and the second comprised 50 persons who had been seen at the outpatient clinic at the hospital. The controls were matched for sex, race, and age. The objective was to see if there were significant differences in the life style in residence, localization and work records of tuberculosis patients in contrast to those seen on medical floors or coming to the outpatient clinic. The data collected provide an interesting profile.

The typical patient with tuberculosis at Martland is a black male, born in the southern part of the United States, 35 years of age, with ten years of schooling. He comes from a family of six, is a laborer, was unemployed two months prior to hospital admission, held his last job for at least five years, and stopped working because of his illness. There is no history of tuberculosis in his family. He consumes almost four-fifths of a quart of alcohol a day, smokes almost a pack of cigarettes a day, usually smokes after dinner, and does not use illicit drugs.

On admission to the hospital he weighs approximately 160 lbs. and experienced considerable weight loss — about 20 pounds, since the onset of his illness. He seldom eats breakfast, seldom misses lunch, never misses dinner, and usually takes vitamins. His weekly food intake approximates 400 grams of protein, 475 grams of fat, 1,000 grams of carbohydrates and approximately 15,000 calories, excluding calories from alcohol. He differs from the control groups *only* in that he consumes more liquor, is lighter in weight, and that his pre-tuberculosis nutrition intake at all levels is considerably lower. Aside from this, he shows little difference.

#### Vitamin Profile

In addition to the survey, some tuberculosis patients were screened for vitamin blood levels by bio-assay techniques to determine whether there were significant deficiencies among them (Table 3).

The following vitamin deficiencies were

Table 3

Select Vitamin Deficiencies Among Tuberculosis Patients  
Admitted to Martland Hospital, Newark, New Jersey, 1973

Vitamin	Normal Range	Total Cases Screened	Number Below Range	Percent Below Range
Folic Acid	5-24 mg/ml	23	9	40
B-6	30-80 mg/ml	22	15	68
Nicotinate	4-9 mg/ml	35	21	60
B-1	25-75 mg/ml	35	15	43

Table 4

Vitamin B-6 Deficiencies in TB Patients  
and Migrant Farmworkers

	Total Cases	Number Below Range	Percent Below Range
TB (Newark)	22	15	68
Farmworkers	25	20	80
Total	47	35	75

recorded in significant numbers: folic acid (40 percent were below the normal range), pyridoxine (68 percent below normal), nicotinic acid (60 percent below normal) and thiamine (43 percent below the normal range).

Although the number screened is small, we are continuing to study these deficiencies further since our experience in a study of migrant workers in southern New Jersey with a similar socio-economic status and allegedly tuberculosis-prone also showed significant pyridoxine deficiencies (Table 4). These determinations were made in apparently healthy, working migrants. It is of course likely that the vitamin abnormalities in large part resulted from the illness, but the findings in migrant workers are intriguing and suggest that certain vitamin deficiencies may predispose to tuberculosis. We

are now looking at this carefully in an experimental animal model.

### Trace Metal Concentrations

Tuberculosis patients were also screened for trace metal blood concentrations. Thus far the changes found, particularly in copper and zinc levels, suggest the effects of a stress reaction rather than predisposing trace metal intoxication. These studies are also being amplified in both man and experimental animals.

### Discussion

Newark's health problems are perhaps the most acute in the nation with tuberculosis reflecting accurately the city's unhealthy status. Although the TB cases are concentrated in the center of the city, our experiences show that it is difficult to make valid assessments of the TB problem in regard to race since New Jersey prohibits collection of data by this variable. At best we can only make assumptions which imply that tuberculosis in Newark tends to be a "black man's disease."

The survey at Martland Hospital reveals few distinctions between the tuberculosis patients and the control groups studied, but the combination of increased alcohol ingestion and vitamin deficiencies is intriguing. In particular, the data on pyridoxine are interesting; we are examining this closely to see if a relationship exists between pyridoxine deficiency and susceptibility to tuberculosis. It seems to us that this kind of multivariate analysis in areas in which TB continues to be prevalent is necessary if we are to understand the continuing high prevalence of this disease in certain geographic areas.

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# Both after



- Predominant psychoneurotic anxiety

- Associated depressive symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) may occur following abrupt discontinuation (convulsions, tremor, abdominal cramps, vomiting and sweating). Use with caution in addiction-prone individuals under

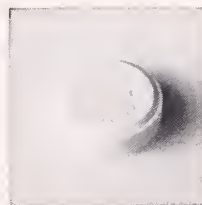
# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

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in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



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with associated  
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, sedatives, barbiturates, MAO inhibitors and other antidepressants may potentiate sedation. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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# CASE REPORTS

*Small intestinal atresia is an uncommon congenital condition occurring once in ten to twenty thousand births. Because of wider dissemination of correct methods of preoperative preparation, operative technique, and postoperative care, 80 percent of newborn children with this condition are now successfully treated. This is a case report of such a newborn child with high intestinal obstruction, diagnosed early, before dehydration, electrolyte imbalance, sepsis, and perforation had occurred and whose successful course illustrates both correct modern methods of management and some common complications.*

## Treatment of Jejunal Atresia

**Richard W. Brenner, M.D. and  
Barry Lauton, M.D./Summit**

Jejunal or ileal atresia is an uncommon congenital condition, occurring only once in ten to twenty thousand births. While the first patient was described in 1684, the first operation was not attempted until 1899, and the first success did not occur until 1911. By 1950 there had been only 139 survivors of 1,498 published cases. Since 1950, however, because of wider dissemination of correct methods of preoperative preparation, operative techniques, and postoperative care, there has been almost a complete reversal of the earlier dismal survival statistics, such that over 80 percent of such children are now successfully treated.

This is a report of a child whose high intestinal obstruction was diagnosed early, before dehydration, electrolyte imbalance, sepsis, and perforation had occurred and whose successful course illustrates both correct modern methods of management and some common complications.

### Case Report

A 6 pound, 13 ounce female was born to a 22-year-old, B-positive primigravida after 39 weeks gestation. A three-hour labor was terminated by emergency Caesarean section because of cephalopelvic disproportion, as confirmed by pelvimetry. There had been clinical hydramnios during the pregnancy. The baby was delivered seconds after rupture of the membranes which caused the spurt of a large volume of amniotic fluid, some of which the baby may have swallowed and/or aspirated. There were, however, no immediate resuscitative difficulties, Apgar scores having been 9 and 10 at 1 and 5 minutes, respectively. The infant was suctioned of 7 to 8 cc. of thick, yellow-tinged amniotic fluid from her pharynx and stomach via bilaterally patent posterior choanae. She was placed in an isolette with full humidity and heat and was given no oral nourishment.

The infant continued to bring up small amounts of yellowish, watery liquid the remainder of that day and the next day. By age 28 hours she was found by the nurse in a pool of pale greenish to yellow fluid approximating 100 cc. She was difficult to stimulate and had a weak cry; she had not passed meconium and abdominal distension was evident. (Figure 1) Abdominal flat and upright x-ray films showed high intestinal obstruction with a "double bubble" and one spot of jejunal air below the duodenum. A rectal thermometer yielded no meconium. Decreased subcutaneous tissue turgor was noted clinically.



Figure 1 — Distended upper abdomen viewed from the side with umbilical cord clip below. Lower abdomen not distended.

The baby was taken promptly to surgery. Antecubital vein cut-down was done and halothane endotracheal anesthesia was begun. The abdomen was entered through a right upper transverse incision and the abdominal contents were eviscerated. There was a dilated stomach, duodenum and proximal 15 cm. of jejunum with a bulbous dilatation behind a jejunal atresia. (Figure 2) The latter was resected along with 12 cm. of proximal dilated jejunum and 3 cm. of distal jejunum, which was felt not to be functionally viable. An end-to-end single layer chromic jejunojejunal anastomosis was done.

The immediate postoperative period was interspersed with vomiting for the first four days and frequent, semi-liquid seedy stools (with almost every feeding) for the first ten days. There was also drainage of purulent material from the lateral end of the abdominal incision, from the left ankle cut-down and from the right antecubital cut-down site. Cut-down sites were opened and all draining areas were treated successfully



Figure 2 — View of jejunal atresia with distended, obstructed proximal jejunum and collapsed, unused distal jejunum.

with soaks and hydrogen peroxide irrigations. Intravenous fluids were given initially until oral feedings were retained and the antibiotic was given intramuscularly and later, orally. Weight dropped to 5 pounds 14 ounces at age one week (the fifth post-operative day), but it increased thereafter to a final discharge weight of 6 pounds 2 ounces on the thirteenth hospital day. Because of a Grade III/VI holosystolic cardiac murmur heard on the fifth day along the left sternal border with maximal intensity at the left third intercostal space, the patient was referred to the pediatric cardiology clinic for evaluation two weeks following hospital discharge. She has grown well since then and presently has no intestinal symptoms, and weighs about 20 pounds at age 11 months.

## Discussion

Most cases of intestinal atresia are acquired in intrauterine life secondary to volvulus, intussusception, and vascular occlusions. In support of this statement are the frequent findings of mummified intussusception, persistent areas of volvulus, wide gaps between bowel ends, defects of the mesentery and the presence of an atretic bowel within the tight ring of a small omphalocele. Intestinal atresias, exactly like those in human patients have been produced experimentally in puppies in utero by ligating the mesenteric vessels or by producing an obstructive volvulus. Since other associated birth defects rarely occur in humans with jejunal atresia and since bile, hair, and squamous epithelial cells are often found distal to the atresia, it is likely that the damage has occurred late in fetal development. Histologic sections frequently have areas of necrosis, foreign body

granulomas, and calcification about the site of atresia. This concept of the cause of atresia is important because it emphasizes the need for wide resection of the atretic area. When this is not done, the anastomosis may be widely open, but be functionally obstructed by its inability to perform proper peristalsis. Retained dilated segments can contract, but peristalsis is not coordinated or propulsive. The child does not need his total bowel length and can grow normally with careful oral management if only 50 cm. of jejunum and ileum plus the ileocecal valve remain. However, it is seldom necessary to remove more than 40 cm. of the 150-250 cm. of small bowel that a newborn has at birth.

Helpful operative techniques include saline dilatation of the distal collapsed bowel, performance of a single-layered anastomosis to prevent anastomotic diaphragms, avoidance of side-side anastomoses to prevent "blind-loop" syndrome, and careful suture technique whether aseptic-closed or open.

Many complications can result. Pulmonary problems are frequent, partly due to preoperative vomiting and aspiration and partly due to postoperative distention. Mild wound infections are not uncommon, but usually clear with warm soaks. Anastomotic leaks present at the fourth or fifth day with local or general peritonitis and a new intestinal obstruction nearly always develop, often followed by a fistula to the wound. Early re-operation after treatment with antibiotics and blood is mandatory because of the serious infection at the site of obstruction. Severe diarrhea may require special monosaccharide feedings or parenteral hyperalimentation. In any event, initiation of oral feedings too early may result in recurrent ileus.

Uncomplicated cases of jejunal atresia which are diagnosed early and managed properly have an excellent prognosis for normal life, but even complicated problems with gangrene, perforation, and sepsis are being salvaged regularly.

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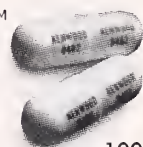
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# 1975 Annual Meeting

## DAILY SCHEDULE

Saturday through Tuesday  
May 31 to June 3

Cherry Hill  
Convention Center

### Friday, May 30, 1975

4:00 p.m. — Board of Trustees — Diamond Room  
Lower Level, Cherry Hill Inn

### Saturday, May 31, 1975

8:00 a.m. — Registration Opens — Garden State  
Convention Center, Main Level  
8:30 a.m. — First Annual Governor's Conference  
on Unresolved Questions Affecting the  
Delivery of Health Care — Garden  
State Convention Center  
11:30 a.m. — Meeting: New Jersey Committee on  
Trauma, American College of  
Surgeons — Colony East, Lower  
Level, Cherry Hill Inn  
12 noon — Exhibits Open — Garden State  
Convention Center, Main Level  
12 noon — Luncheon — New Jersey Committee  
on Trauma, American College of  
Surgeons — Colony West, Lower  
Level, Cherry Hill Inn  
1:30 p.m. — Annual Spencer T. Snedecor Trauma  
Oration, New Jersey Committee on  
Trauma, American College of  
Surgeons — Colony East, Lower  
Level, Cherry Hill Inn  
2:00 p.m. — House of Delegates — Garden State  
Convention Center, Fourth Level  
2:00 p.m. — Motion Picture Theater — Garden  
State Convention Center, Second  
Level  
3:00 p.m. — Reference Committees: Constitution  
and Bylaws; "A"; "B"; "D"; "G"  
Garden State Convention Center  
4:00 p.m. — Meeting: Executive Council, New  
Jersey Chapter, American Academy  
of Pediatrics — Currier and Ives  
Room, Lobby Floor, Cherry Hill Inn  
5:00 p.m. — Nominating Committee — Foyer,  
Lobby Floor, Cherry Hill Inn  
7:00 p.m. — Officers' Dinner (by invitation only)  
— State Rooms, (Empire, Garden  
and Keystone)  
Lower Level, Cherry Hill Inn  
7:00 p.m. — Convention Revelry — Cocktails,  
Dinner, Entertainment, Dancing —  
Colony Room and Tavern, Lower  
Level, Cherry Hill Inn  
7:00 p.m. — Dinner — New Jersey Chapter,  
American Academy of Pediatrics —  
Diamond Room, Lower Level, Cherry  
Hill Inn

### Sunday, June 1, 1975

9:00 a.m. — Registration and Exhibits Open —  
Garden State Convention Center  
9:00 a.m. — Scientific Session:  
Emergency Medicine — Garden  
State Convention Center  
9:30 a.m. — Scientific Sessions:  
Allergy, Otolaryngology — Garden  
State Convention Center  
Cardiovascular Diseases, Family  
Practice, Medicine — Garden State  
Convention Center  
Radiology, Urology — Garden State  
Convention Center  
10:00 a.m. — Scientific Session:  
Pediatrics — Garden State Con-  
vention Center  
10:00 a.m. — Motion Picture Theater — Garden  
State Convention Center, Second  
Level  
10:00 a.m. — Reference Committees:  
"C"; "E"; "F"; "H"  
Garden State Convention Center  
12 noon — Luncheons:  
New Jersey State Society of  
Anesthesiologists — Rickshaw Inn  
New Jersey Academy of  
Ophthalmology and Otolaryngology  
— Rickshaw Inn  
12:30 p.m. — Luncheons:  
New Jersey Chapter, American  
College of Emergency Physicians —  
Rickshaw Inn  
New Jersey Allergy Society —  
Rickshaw Inn  
1:00 p.m. — Scientific Sessions:  
Anesthesiology, Medicine — Garden  
State Convention Center  
Clinical Pathology, Rheumatism —  
Garden State Convention Center  
Family Practice — Garden State  
Convention Center  
Neurosurgery and Neurology, Plastic  
and Reconstructive Surgery —  
Garden State Convention Center  
Ophthalmology — Garden State  
Convention Center  
Psychiatry — Garden State Con-  
vention Center  
2:00 p.m. — Motion Picture Theater — Garden  
State Convention Center, Second  
Level

- 3:15 p.m. — House of Delegates (election) — Garden State Conventian Center, Faurth Level
- 3:45 p.m. — General Session: Addresses by President Rogers and President-Elect McGuire — Garden State Conventian Center, Fourth Level
- 4:30 p.m. — Galden Merit Award Ceremany — Garden State Conventian Center, Faurth Level  
Reception far Award Recipients and Their Families
- 4:30 p.m. — Meeting: Society far the Relief af Widaws and Orphans af Medical Men af New Jersey — Currier and Ives Room, Labby Floor, Cherry Hill Inn
- 6:30 p.m. — Inaugural Reception — Presidential Ball Raam, Ground Flaar, Cherry Hill Inn.

### Monday, June 2, 1975

- 8:00 a.m. — JEMPAC Breakfast — Independence Raam, Lower Level, Cherry Hill Inn
- 8:30 a.m. — Registratian Opens — Garden State Conventian Center, Main Level
- 8:30 a.m. — Scientific Session: Surgery — Garden State Conventian Center
- 9:00 a.m. — Exhibits Open — Garden State Conventian Center, Main Level
- 9:00 a.m. — Scientific Sessions: Dermatalagy — Garden State Conventian Center  
Orthapedic Surgery — Garden State Conventian Center
- 9:30 a.m. — Scientific Session: Chest Diseases, Family Practice, Medicine — Garden State Conventian Center
- 10:00 a.m. — Matian Picture Theater — Garden State Conventian Center, Secand Level

- 12:30 p.m. — Luncheans: New Jersey Dermatalogical Society — Pagada Raam, 3rd floor, Rickshaw Inn  
New Jersey Chapter, American College of Chest Physicians (Annual Selman A. Waksman Lecture) — Rickshaw Inn
- 1:00 p.m. — Scientific Sessions: Gastraenterology and Practalagy — Garden State Conventian Center  
Physical Medicine and Rehabilitation — Garden State Conventian Center
- 1:30 p.m. — Luncheon: New Jersey Orthopaedic Society — Tea House, 1st floor, Rickshaw Inn
- 2:00 p.m. — Motian Picture Theater — Garden State Conventian Center, Secand Level
- 3:00 p.m. — Exhibits Clase
- 3:15 p.m. — House af Delegates — Garden State Conventian Center, Faurth Level
- 5:30 p.m. — JEMPAC: Cheese and Wine Reception — Garden State Conventian Center
- 5:30 p.m. — Alumni Reception: Jeffersan Medical Callege — Cherry Hill Inn  
Alumni Reception: Hahnemann Medical Callege — Cherry Hill Inn
- 8:00 p.m. — Dinner-Dance Hanoring President and Mrs. Rogers — Presidential Ballraam, Upper Level, Cherry Hill Inn

### Tuesday, June 3, 1975

- 9:00 a.m. — Registratian Opens — Garden State Conventian Center, Main Level
- 9:00 a.m. — House af Delegates — Garden State Conventian Center, Faurth Level
- 12 noon — Registratian Clases
- 4:00 p.m. — Baard af Trustees — Garden Raam, Lower Level, Cherry Hill Inn

## GOLDEN MERIT AWARDS

Sunday, June 1 at 4:30 p.m.

The Golden Merit Award, established in 1957, is conferred upon every member of The Medical Society of New Jersey who has held the degree of Doctor of Medicine for fifty years. A list of recipients will be published in a subsequent issue of *The Journal*.

**Reception Immediately Following Ceremony**



*Sub-diaphragmatic abscesses occurring in the lesser peritoneal sac are relatively rare. A case with unusual presentation is reported. The incidence, mechanisms of formation, radiographic appearance, and management of a lesser peritoneal sac abscess are discussed.*

## An Unusual Case of Lesser Peritoneal Sac Abscess\*

**O. C. Cordero, M.D.,  
M. Guarnaccia, M.D.,  
and F. A. Lopez, M.D./Newark**

The problems involved in the diagnosis and management of an abscess in the lesser peritoneal sac form the basis for this report. A lesser peritoneal sac abscess is, in essence, a subphrenic abscess. Various interpretations of the subphrenic space have been so confusing that several authors have attempted to clarify the subphrenic spaces and define their respective boundaries. In view of the unusual presentation of our case, we feel that an anatomical review of the lesser sac is in order.

Anatomically, the lesser peritoneal sac communicates with the greater sac through the foramen of Winslow. Its anterior wall consists of the caudate lobe of the liver, the lesser omentum, the posterior surface of the stomach, and the anterior two layers of the transverse mesocolon. The posterior wall consists of the transverse mesocolon, the posterior two layers of the greater omentum, most of the pancreas, the left supra-renal gland, the anterior surface of the left kidney, the diaphragm, and the upper portions of the abdominal aorta and the inferior vena cava.<sup>1-4</sup> The upper recess of the sac reaches the crura of the diaphragm opposite the lower thoracic vertebrae. Of surgical importance is the fact that the lesser peritoneal sac can expand only to the left, inferiorly and anteriorly, because of the relative rigidity of the liver, diaphragm, and posterior abdominal wall. However, it should be emphasized that the space is capable of great distensibility as demonstrated by our case.

### Case Report

A 63-year-old female, was admitted to the hospital com-

plaining of marked weakness and unremitting abdominal pain beginning twenty-four hours prior to admission. Shortly after the symptoms began, she had two soft black bowel movements. The patient had been under treatment for a duodenal ulcer for three years. One month prior to admission, she had experienced varying degrees of epigastric discomfort and evacuated black stools. The patient appeared pallid and restless and had a dry, warm skin. The abdomen was soft with slight epigastric tenderness. Pelvic and rectal examinations were negative except for the tarry stools. Laboratory results revealed: hemoglobin, 3.8 gms. hematocrit, 16; RBC, 2,060,000; WBC, 16,000 with 52 polys, 38 bands, 8 lymphs, 4 monos; urinalysis was not remarkable and electrolytes were essentially normal. The stool was positive for occult blood.



*Figure 1-A — Duodenal bulb ulcer is well demonstrated (white arrow) communicating with the lesser sac (black arrows) which is partially outlined by a small amount of contrast media that has escaped from the perforated duodenal ulcer.*

\* From the Department of Radiology, New Jersey Medical School, CMDNJ, where Drs. Cordero and Guarnaccia are Assistant Professors of Radiology and Dr. Lopez is Professor of Radiology.



Figure 1-B — The erect lateral projection shows the large anterior extension of the lesser sac (white arrows) which displaces the stomach posteriorly (black arrows).

The patient was placed on Sippy diet, sedative, and antibiotics. She received two pints of blood in 24 hours. On the third hospital day, an upper GI x-ray examination was performed. A duodenal ulcer that communicated with the lesser sac was demonstrated (Figure 1-A). Some of the barium outlined the sac. Air fluid levels in the stomach and also in the sac were demonstrable in the erect position (Figures 1-B, 1-C).

The patient was treated conservatively; however, on the sixth hospital day, her temperature went up to 102.4 F. Radiographic examination of the abdomen in lateral, erect, and decubitus projections (Figures 2-A, 2-B, 2-C) revealed an increase in the air fluid level in the previously described lesser sac abscess. Further observation seemed precarious and the patient was taken to surgery. Drainage of a lesser sac abscess was performed. Following surgery, the patient improved and was discharged on the 20th hospital day.

### Discussion

Although sub-diaphragmatic abscesses are not uncommon, abscesses occurring in the lesser sac are relatively rare. Perforated lesions of the posterior wall of the stomach comprise the majority of the reported cases. One reason for the less frequent involvement of the lesser sac may be explained by autopsy studies. In one study of 200 cases of chronic gastric ulcer, only 2.5 per-



Figure 1-C — Postero-anterior erect projection demonstrates large air fluid level in the upper abdomen extending from the epigastric area to the left hypochondriac region (white arrows). The stomach is partially outlined by barium and is displaced downward and laterally (black arrows). Note the elevation of the left diaphragmatic leaflet.

cent perforated posteriorly in contrast to the 29.5 percent which perforated anteriorly. A similarly greater proportion of duodenal ulcers perforated anteriorly.<sup>6</sup> Another survey involving 1,522 autopsy cases at the Sinai Hospital in Baltimore, Maryland, included 101 cases with 105 peptic ulcers, in all stages. None of the peptic ulcers that perforated involved the lesser sac.<sup>5</sup> Also, posterior wall ulcers have apparently more chance of being sealed off by adjacent posterior structures.

According to Ochsner and Debaquey,<sup>8</sup> about 3.3 percent of all sub-phrenic abscesses occur in the lesser sac. These authors, however, do not mention perforation of any hollow viscus. Ochsner and Graves<sup>7</sup> showed an incidence of about 3 percent in 1,516 collected cases, including 50 of their own cases occurring in the left posterior inferior space (lesser sac). Feldman<sup>5</sup> had a similar collection of 1,583 surgically proved cases of peptic ulcer perforation and found only 16 cases perforated into the lesser peritoneal sac, an incidence of one percent. Such findings concur



Figure 2-A — Erect postero-anterior projection. The air fluid level in the lesser sac is now markedly enlarged. The smaller collection of air in the supero-lateral aspect of the cavity represents air in the gastric fundus.

with the observations of Wakely,<sup>9</sup> who reported that posterior intra-peritoneal abscess is the rarest of all, with posterior gastric ulcer the principal agent.

The symptoms of lesser peritoneal sac abscess may closely resemble those of pancreatic cyst and are, for the most part, largely dependent upon the degree of greater omental involvement. The presence or absence of gas in such an abscess depends upon whether or not a hollow viscus has been perforated, and, if so, what organism is forming the pus.

The early diagnosis of sub-diaphragmatic abscess has always been difficult; awareness of the possibility of sub-phrenic abscess is most important. A left sub-phrenic abscess is more difficult to diagnose than that of the right because there is greater room for expansion of an abscess on the left. The relatively unyielding right lobe of the liver causes exudate to expand its pressure against the diaphragm. As a consequence, the right leaf of the diaphragm tends to be elevated and fixed earlier than the left. The history,



Figure 2-B — Lateral erect projection reveals a large abscess in the lesser sac (black arrows) anterior to the stomach shadow (white arrows).

physical findings, and radiological studies help to determine the diagnosis.

The radiologic appearance of lesser sac abscess is recognized early if one has a good knowledge of anatomy of the area. The distended sac rises



Figure 2-C — Right lateral decubitus projection reveals a huge fluid level extending from the epigastric region to the level of the second lumbar vertebra.



high in the posterior abdomen and produces an oval shadow which is separated from the stomach or any other portion of the gastrointestinal tract, in the supine position. In the erect position, air collects in the posterior upper cupola of the lesser sac producing a semi-lunar radiolucency with a demonstrable air fluid level, depending upon the amount of gas present. Characteristically, the abscess is in the midline and extends to the left and right side high in the abdomen. Although an abscess of the lesser sac need not be large, most of the reported cases are of sufficient size to produce displacement of the stomach. Since the lesser sac is posterior to the stomach, we would anticipate an anterior displacement of the stomach; it is possible to see the stomach being displaced posteriorly, as in our case. This is explained by the protrusion of the abscess into the gastro-colic ligament with the abscess impinging anteriorly upon the stomach. Contrast studies will outline an ulcer which has perforated and communicated with the sac, as in the case described above. Barium may collect in the lesser sac and outline it.

When the greater peritoneal sac is secondarily involved through communication with the foramen of Winslow, the primary lesser sac perforation may be missed. In this instance, the clinical and roentgen manifestations will be masked by the more overwhelming clinical picture of acute abdominal emergency frequently associated with perforations into the greater peritoneal space.

The management of lesser sac abscess is similar to that of any walled-off intra-abdominal abscess. The majority of collections in the lesser space resolve themselves with conservative therapy. In the case reported, it is obvious that the ulcer perforated several days prior to our study. The collection of gas and fluid did not resolve and required incision and drainage.

## References

1. Anson BJ: *An Atlas of Human Anatomy*. Philadelphia, Saunders, 1963, p 370.
2. Ariel I, and Kazarian MD: Classification, diagnosis and treatment of sub-phrenic abscess. *Review of Surgery* 28:1, 1971.
3. Boyd David: The anatomy and pathology of the sub-phrenic spaces. *Surg Clin North America* 38:619, 1958.
4. Faxon HH: Sub-phrenic abscess, a report of one hundred and eleven consecutive operative cases. *N Engl J Med* 222:289, 1940.
5. Feldman MD: Perforation of peptic ulcer: a roentgenologic consideration of the various forms and uncommon types of perforation. *Rad* 55:217, 1950.
6. Ivy AC, Grossman M, Bachrach W: *Peptic Ulcer*. Philadelphia, Blakiston, 1950, p 506.
7. Ochsner A, and Graves A: Sub-Phrenic abscess: an analysis of 3,372 collected and personal cases. *Annals of Surg* 98: 961, 1933.
8. Ochsner A, and Debaeky M: Collective review and analysis of 3,608 collected and personal cases. *Int Abst of Surg* 66:426, 1938.
9. Wakely C: *Synopsis of Surgery*. New York, McGraw-Hill, 1963, p 230.

Martland Hospital Unit

## Study of Patients with Chronic Hepatitis

The National Institutes of Health Clinical Center is asking the cooperation of physicians in referral of patients for studies of chronic aggressive hepatitis or chronic persistent hepatitis now being undertaken by the National Institute of Arthritis, Metabolism, and Digestive Diseases. Needed are untreated patients who are SH antigen negative, preferably by radioim-

munossay. Patients accepted will be admitted to the Center where they will undergo evaluation and be started on treatment. Duration of admission is expected to be about three weeks. Physicians interested in having their patients considered may write to E. A. Jones, M.D., National Institutes of Health Clinical Center, Room 4-D-54, Bethesda, Maryland 20014.

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# NEW JERSEY DOCTORS' NOTEBOOK

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## Trustees' Minutes

March 16, 1975

A regular meeting of the Board of Trustees was held on March 16, 1975, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

*Foundation for Health Care Evaluation . . .* Approved the following report (as amended) of the Executive Committee: (Board amendments indicated by italics.)

Resolution #6, "Evaluation of the New Jersey Foundation for Health Care Evaluation," which was adopted as amended by the 1974 House of Delegates, called for the Society to re-examine and re-evaluate the function and scope of the New Jersey Foundation for Health Care Evaluation and its relationship to The Medical Society of New Jersey.

On January 22, 1975, a meeting was held between the Executive Committee of MSNJ and that of the Foundation at which time an in-depth study and review were initiated.

The purposes of the Foundation are generally stated as follows:

a. Promote, foster, and develop the availability of quality health care, either alone or in conjunction with individuals, doctors, hospitals, schools, or corporations, organizations, foundations, funds, institutions, or government bodies.

b. Promote, develop, and establish standards for quality care based upon the professionally recognized practices of physicians licensed and practicing in New Jersey.

c. Promote, organize, and operate peer review activities that provide objectivity in dealing with health care costs, assist in determining medical necessity, and proper utilization of services encompassing the total health needs of patients according to *professionally* established standards.

d. Promote, foster, and coordinate the involvement of the health professions in development and evaluation of activities directed to relieving acute manpower shortages, im-

proving the availability of preventive services and expanding the availability of appropriate ambulatory care as an alternative to institutional services and to provide information concerning these activities to individuals, doctors, hospitals, schools, foundations, institutions, governmental bodies, corporations, and the general public.

e. Promote, develop, and coordinate involvement by the health professions in comprehensive health care planning.

f. Assist in the development and establishment of acceptable standards for comprehensive health insurance coverage.

g. Assist in the implementation of Public Law 92-603 as it relates to professional standards review organizations.

Admittedly, these purposes are broad but that is a practical necessity. The role of the Foundation as a PSRO support center is widely understood by Society members. But, its possible functioning in a non-PSRO role is poorly understood.

The Foundation has become the hub of true peer review in New Jersey and given the proper direction and support, it can and will become an organization of vital importance to all members of MSNJ.

The Standards of Criteria developed over the last year have been distributed to all New Jersey hospitals and a plan for prospective and concurrent review was developed for the Medicaid Program but was not implemented.

The Foundation can function as the strong right arm of The Medical Society of New Jersey in forestalling incursions of the State Department of Health and other lay-oriented groups into "cost only" utilization and peer review. It can and is studying the HMO concept and pre-paid plans in regard to evolving patterns of delivery systems. Given the opportunity it could enter the area of claims review thus assuring the physician that his services will be evaluated by a competent, practicing professional.

The objects and purposes of the Foundation are compatible with those of the Society and the

working relationship has not only been one of mutual satisfaction but has been typified by a pleasantly cooperative spirit. Obviously, by expanding staff and facilities the Society could perform many, if not most, of the functions of the Foundation. But, not with the same degree of intensity nor, as we are advised by MSNJ staff, at a more reasonable expenditure.

It is, therefore, the conclusion of your Executive Committee that the current relationship between the Society and the Foundation is desirable and should be continued, and, *if supplemental funding by MSNJ becomes necessary, such funding should be made a part of the dues structure of the Society.*

*Professional Liability Insurance . . .* Received a report from the Executive Director concerning the following actions in opposition to A-1552:

- a. A telegram was sent to all State Senators, the Governor, and the Commissioner of Insurance calling for rejection of the bill and support instead of the Greenberg Resolution calling for an in-depth study. Cooperating agencies were: New Jersey Association of Osteopathic Physicians and Surgeons, New Jersey Dental Association, New Jersey Optometric Association, New Jersey Podiatry Society, and the New Jersey Pharmaceutical Association.
- b. Certified letters were also sent to all State Senators, the Governor, and the Commissioner of Insurance, along with a copy to the major daily newspapers.
- c. On Tuesday, March 11, the insurance industry assured the Insurance Department that it would guarantee professional liability coverage to any and all providers of health care services.
- d. An action bulletin has been sent to all "Senate Keymen."

*Federal Comprehensive Planning Legislation . . .* Directed that the President send a letter to the Governor, with a copy to the Commissioner of the State Department of Health, indicating that MSNJ is not in favor of portions of New Jersey being aligned regionally with peripheral states, noting that such division would lead to financial loss of federal government funding.

*. . .* Directed further that county societies affected by possible regionalization be notified of scheduled meetings and urged to have representatives attend.

*AMA Voluntary Contributions . . .* Noted that the communication to the membership re-

questing voluntary contributions to alleviate the AMA's financial crisis had resulted in 534 donations in the amount of \$6,465.

*Statement on Drug Abuse . . .* Approved a recommendation from the Council on Mental Health that the following statement be adopted:

The Medical Society of New Jersey recognizes that drug abuse is a major public health problem and calls for mutual cooperation among the state and federal agencies and the Society in combating this problem.

*School of Professional Psychology . . .* Received the following recommendation from the Council on Mental Health:

That the Board of Trustees of The Medical Society of New Jersey see that active opposition be taken (to a school of professional psychology) by a concerted educational effort. This effort is essential to prevent the erosion of quality medical care of the residents of New Jersey. It is one of the trusts of The Medical Society of New Jersey to pursue this cause.

*Note:* The New Jersey School of Professional Psychology is in operation. Its purpose is listed as the training of practitioners in clinical psychology. Psychologists with appropriate qualifications are eligible for licensure in New Jersey to practice psychotherapy. Organized medicine's position is that psychotherapy is a medical modality and should be utilized only by those practitioners properly trained as physicians.

*Conference on Disabled Doctors . . .* Approved the following recommendation from the Council on Mental Health:

That Martin Weinberg, M.D., attend the AMA Conference on the Disabled Doctor, to be held in San Francisco, April 11 and 12, 1975, at MSNJ's expense.

*. . .* Authorized I. Edward Ornaf, M.D., also to attend the above-mentioned conference at MSNJ's expense.

*Reform of Medical Malpractice Law . . .* Approved the following recommendation from the Committee on Medical Defense and Insurance:

That the following five items be referred to the Council on Legislation to effect proper legislation in the matter of medical malpractice:

1. Statute of Limitations
2. Limitation on size of excess awards with possibly an annual review mechanism
3. Placing the burden of proof on the plaintiff



4. Informed Consent

5. Assigned risk pool

*In-Hospital Liabilities for Doctors, Including Interns and Residents . . .* Approved the following recommendation from the Committee on Medical Defense and Insurance:

That insurance coverage for hospital staff personnel, such as interns and residents not eligible for MSNJ membership, be written on a temporary basis until November 1, 1975, as approved recently by emergency action of the Executive Committee.

*Note:* Britton Agency will be alerted to the possibility of interns and residents moonlighting (where malpractice insurance under the educational plan would not be applicable), so that the interns and residents can be informed of the risk of being non-insured in such a situation.

*Emergency Medical Service Training Institute . . .* Referred back to the Committee on Emergency Medical Care for rewording a resolution calling for the establishment of a central agency known as Emergency Medical Services Training Institute, to be affiliated with MSNJ, noting that the Board approved, in principle, the concept of the Institute, pending the results of a feasibility study, with the understanding that no financial commitment is made.

*Retirement of Marie A. Sena, M.D. . . .* Approved the following recommendation from the Committee on Emergency Medical Care:

That an appropriate resolution be prepared giving due recognition to Marie A. Sena, M.D., for her long service (as Director of Emergency Medical Services in the New Jersey State Department of Health), and that an appropriate plaque be given to Dr. Sena accompanied by a letter of gratitude from the Committee.

*Dispensing Controlled Substances Via Prescriptions from Out-of-State Physicians . . .* Noted that the Delaware Uniform Controlled Substances Act does not allow in-state pharmacies to dispense controlled substances' prescriptions written by out-of-state practitioners unless the practitioner is registered un-

der the Delaware Controlled Substances Act. Dr. McGuire, in his capacity as Secretary of the State Board of Medical Examiners, agreed to investigate this matter as it pertains to New Jersey.

*Conference of Presidents and Presidents-Elect of Component Societies . . .* Received a report from Howard L. Nunes, M.D. of Hudson County on the morning Conference of Presidents and Presidents-Elect of Component Societies, whose 15 attendees represented twelve county societies. Topics discussed included:

(1) malpractice legislation — Board informed the group that, based on model legislation prepared by the AMA, MSNJ plans to draft legislation for compliance with the New Jersey situation and have bills introduced into the legislature in April;

(2) permits for unlicensed foreign physicians — Board noted that the Morris County Medical Society plans to have introduced at the 1975 annual meeting a resolution dealing with temporary licensure for unlicensed foreign physicians;

(3) change in Medicare legislation to update approved Medicare fees — Conference members were concerned over time involved for fiscal intermediary for Medicare to update payment schedule;

(4) payments of malpractice premiums in installments — Conference was informed that installment premiums could be arranged at an increased cost for administrative duties, and it was suggested that if such an arrangement is desired a communication be sent to the Chairman of the Committee on Medical Defense and Insurance requesting consideration of the proposal;

(5) AMA delegates elected only by AMA members — Conference was informed that under MSNJ's Constitution it would not be possible to elect AMA delegates only by members of the AMA: if such a procedure is desirable, a Constitutional amendment is necessary;

(6) federal comprehensive planning legislation — Board urged counties to communicate their opposition to a proposal that portions of New Jersey be aligned regionally with peripheral states under the Federal Comprehensive Planning Legislation of 1975;

(7) list of practicing physicians in New Jersey — Board referred request for list of all practicing physicians in New Jersey (members and non-members) to the Administrative Director, NJFHCE, PO Box 684, Trenton 08605;

(8) request for stenographer at future Conference meetings.

**See Map — Directions (p. 447) of Annual Meeting Site**

## CMDNJ Notes

Stanley S. Bergen, Jr., M.D.  
President, CMDNJ

Once a year it seems appropriate to give recognition to those sources of funds beyond our State appropriations. Approximately half of the operating funds of the College of Medicine and Dentistry of New Jersey come from non-budgeted governmental and private sources in the form of tuition, patient service fees at our hospitals and clinics, grants, contracts and gifts. Last year money from these sources rose by nearly 30 percent for a total of \$23,712,090, which enabled the College to expand its education, research, and health care delivery programs.

These urgently needed and sincerely appreciated dollars represent over 300 grants from Federal agencies and private sources, 49 more than the previous year and 112 more than in 1970. In addition, nearly 200 grants were carried forward from 1973 for a working total of almost 500 grants. At the same time our development office has more than 200 project applications pending, each important to the College's growth, and all requiring additional outside financial support.

Noting a few of the grants will give a picture of the sources and application of these funds. Student loans and scholarships come from such diverse sources as the Federal government, the Robert Wood Johnson Foundation, the American Medical Association Education and Research Fund, the Engelhard Corporation, and the Merck Company Foundation.

The contributions from last year's Heart, Cancer and March of Dimes campaigns have been converted into thousands of dollars in grants for research and service programs. We are grateful to the volunteers of the American Cancer Society, American Heart Association, the National Foundation March of Dimes, National Multiple Sclerosis Society, Arthritis

Foundation and many others, as well as to their national, state and county offices.

Foundations, the expression of an individual's or corporation's good citizenship, are another important source of funds at CMDNJ. During the past year we are indebted to the Hunterdon Health Fund, Victoria Foundation, Florence and John Sherman Foundation, Wallace Aljabar Foundation and many others for their generous support of programs that could not otherwise have been undertaken.

The College is fortunate to be located in New Jersey, where some of the nation's leading corporations are headquartered. These companies proved good neighbors with their gifts to CMDNJ. A few of our many active supporters include Warner Lambert, E.R. Squibb & Sons, Hoffman-LaRoche, Schering, Sandoz, Nabisco, Johnson & Johnson, Ciba-Geigy Corporation, Colgate-Palmolive, Prudential, and many more.

As the state's only medical and dental college, we are a conduit through which many agencies of the State and Federal governments are able to carry out research and service programs. Millions of dollars have been awarded the College in contracts and grants by the Federal Department of Health, Education, and Welfare, the National Institutes of Health, and the New Jersey Departments of Health, Education, Institutions and Agencies, and Community Affairs.

Fraternal, civic, and religious organizations are also partners in the College's progress. The Kiwanis, Lions, Odd Fellows, Rebeccas, and Scottish Rite are partners with government, industry, the foundations, and voluntary health agencies.

The College, its faculty, students, and administration are indeed grateful to our many friends in The Medical Society of New Jersey and our generous benefactors. Each of you can take pride in our growth and our progress in service to New Jersey and mankind.

**See list of Annual Meeting housing facilities — p. 459**

# PHYSICIANS SEEKING LOCATION IN NEW JERSEY

*The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.*

**ANESTHESIOLOGY** — Mohan H. Kulkarni, M.D. 254-20 74th Street, Glen Oaks, New York 11004. Bombay (India) 1967. Board eligible. Group, partnership, solo, hospital. Available.

Purshottam B. Bhangdia, M.D., 9111 Church Ave., Brooklyn, New York 11236. Medical College, Nagpur, India (1962). Group or partnership. Available July 1, 1975.

**CARDIOLOGY** — Thomas J. Maley, M.D., 6791 Fisk Ave., San Diego, California 92122. CMDNJ 1970. Board eligible. Any type practice, coronary care and cardiac catheterization desired. Available July 1976.

**GENERAL PRACTICE** — Ping-Fu Tsai, MD., 3207 Walters Lane, Apt. 103, Forestville, Maryland 20028. Kaohsiung Medical College (Taiwan) 1970. Group, partnership, out-patient clinic or emergency room. Available July 1975.

Leonard S. Spoto, Jr., M.D. 4266-1 Wilmington Drive, Andrews AFB, Maryland 20355. Bowman Gray 1971. Group (no OB). Available July 1976.

**INTERNAL MEDICINE** — Man-Siak Mak, M.D., 1770 Grand Concourse, Apt. 2-K, Bronx, New York 10457. Natl. Defense Medical Center (Taiwan) 1968. Subspecialty, gastroenterology. Board eligible. Group or partnership. Available July 1975.

Kang-Yann Lin, M.D., 443 North Park, Lombard, Illinois 60148. Kaohsiung (Taiwan) 1967. Subspecialty, nephrology. Board certified. Solo, partnership, hospital. Available July 1975.

J. McNeill Gibson, M.D., Box 79, Univ. of Virginia Hospital, Charlottesville, Virginia 22091. Univ. of North Carolina (1972). Board eligible. Group or salary (Princeton area preferred). Available August 1975.

Pang-Hsung Wang, M.D., Laurel Heights Hospital, Shelton, Connecticut 06484. Taipei (Taiwan) Board eligible. Small group or partnership. Available July 1975.

Pravinbhai C. Patel, M.D., 254-22 74th Ave., Glen Oaks, New York 11004. Baroda Medical College (India). Board certified. Subspecialty, pulmonary medicine. Group, partnership, solo. Available July 1975.

Shyam S. Tangri, M.D., P.O. Box 1749, Butler, Pa. 16001. Medical College, Amritsar, India 1961. Subspecialty, chest diseases. Board eligible. Group, partnership, institution. Available.

**OBSTETRICS AND GYNECOLOGY** — Neung S. Lee, M.D., 8 Park Street, Demarest 07627. Seoul National Univ. 1963. Board certified. Solo, partnership, or group. Available July 1975.

Chang Chin-Jugi, M.D., 1770 Grand Concourse, Bronx, New York 10457. China Medical College, 1968. Board eligible. Solo, partnership, group, or hospital. Available July 1975.

**OPHTHALMOLOGY** — Jehanger Durrani, M.D., 275 Hollister Dr., E. Hartford, Connecticut 06118. King Edward Medical College, Lahore, Pakistan, 1963. Board certified. Association/partnership, group, or hospital-based practice. Available.

**OTOLARYNGOLOGY** — Malayandi Raja, M.D., 86-16 60th Avenue, Apt. 6-L, Elmhurst, New York 11373. Madras (India) 1957. Board certified. Solo. Available.

**PEDIATRICS** — Fang Yuang Hsu, M.D., 88-25 153rd Street, Jamaica, New York 11432. Taiwan University 1967. Also interested in general practice. Group, associate, house physician, or emergency room. Available June 1, 1975.

**PLASTIC SURGERY** — C. U. Nawada, M.D., 120 Washington St., East Orange 07017, Apt. 38. India 1965. Board certified. Partnership. Available July 1975.

**RADIOLOGY** — Ramesh D. Doshi, M.D., 10 Copeland St., Apt. #305, Quincy, Massachusetts 02169. M.P. Shah Medical College (India) 1966. Associate, group, or hospital. Available July 1, 1975.

**SURGERY** — Rodrigo V. Blanco, M.D., 250 E. 87th St., Apt. 15-B, New York 10028. Santiago Univ. (Spain) 1953. Group or partnership. Available July 1975.

Alberto Abaunza, M.D., 31-21 41st St., Long Island City, New York 11103. Madrid 1957. Board eligible. Group or partnership. Available July 1975.

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## Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

Current Activities of NJFHCE include:

1. Continuing assistance to PSRO areas. Of particular interest are the three PSROs with planning contracts awaiting the awarding of conditional contracts by HEW. Since they will be expected to start actual operations when funded, their preparations are becoming more detailed.

2. Helping all concerned prepare to meet the requirements of the "new" regulations for Medicare and Medicaid. This involves meetings and discussions with all parties involved in care in acute and long-term institutions. Utilization review (concurrent) will be very important. Patricia Houston, R.N., our Assistant Administrator, has used her knowledge and experience to write a syllabus for training utilization coordinators. She has also conducted training programs in other states under the sponsorship of the American Hospital Association.

3. We are participating in planning the designation of Health Services Areas under the Health Planning and Resources Development Act (Public Law 93-641).

4. We have also become involved in HMO development in New Jersey; we are examining both the closed panels and the Independent Physicians Associations (IPAS).

5. We help to disseminate information between all interested parties in answer to the many requests.

6. Systems of information management are being explored. All information necessary for quality assessment should be on hand when the reviewing physicians make their evaluations. We are pursuing the best methods to do this.

Many groups are interested in the developments brought on by various legislative actions. At times, the attitudes of some of the organizations may appear to be competitive. The laws (PL 92-603, PL 93-641) and the regulations also seem to produce overlapping jurisdictions and lines of authority. Be assured the NJFHCE approaches

all of its activities with only one point of view in mind — that of the practicing physicians of New Jersey.

## Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center of the New Jersey Regional Medical Program and the Brookdale Inter-regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, conjointly compile the information contained in this column each month. The New Jersey component is located at the Valley Hospital in Ridgewood. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Following are questions and answers handled by the Center recently.

1. Is it necessary to include both Tes-Tape<sup>®</sup> and Clinitest<sup>®</sup> in the formulary?

There are two basic types of tests available to determine glucose in urine: the glucose oxidase method (Clinistix<sup>®</sup>, Diastix<sup>®</sup>, and Tes-Tape<sup>®</sup>) and the copper reduction method (Clinitest<sup>®</sup>). Both tests differ significantly in mechanism of action, degree of accuracy, and interfering substances.

The glucose oxidase reagent is available in the form of impregnated, colored, cellulose strips or paper tapes which, in

addition to glucose oxidase contains peroxidase and an oxidizable substrate such as ortholidine (Tes-Tape®) or potassium iodide (Diasix®). In the presence of glucose oxidase and water, glucose is oxidized by atmospheric oxygen with the formation of gluconic acid and hydrogen peroxide; peroxide, in turn, in the presence of peroxidase yields nascent oxygen, which reacts with the oxidizable substrate resulting in a characteristic color change.

In the copper reduction method, reducing substances react with cupric sulfate, in alkaline solution and the presence of heat, to reduce cupric ions to insoluble cuprous oxide. This reaction produces a color change of blue through green to orange, depending on the amount of reducing substance present in the urine sample.<sup>1</sup>

The glucose oxidase method is specific for glucose and the simpler of the two tests to perform.<sup>2</sup> It is more suitable for the non-insulin-using diabetic and for screening of patients for diabetes because of its simplicity, specificity, and ability to detect minute amounts of glucose in the urine.<sup>3</sup> However,

it would not be the test of choice for a diabetic receiving insulin therapy because of the test's qualitative nature. Although "quantitative" figures appear on many of the product's labels, glucose oxidase tests are quantitative for glucose in the urine in an amount less than 0.25 percent. Court, *et al.*<sup>4</sup> reported that Tes-Tape® appeared subjectively unreliable as a semiquantitative test, failing to distinguish mild from heavy glucosuria because discrimination of shades of green is somewhat difficult. The same was found with the brown shades on Diasix.® Quantities beyond 2 percent cannot be detected with the enzyme test as they can be with Clinitest.®

The copper reduction method is used for the insulin-using diabetic when a test is needed to give information on the amount of glucose in a timed, before-meal specimen. In such patients quantitation becomes important in regulating blood glucose with an exogenous insulin.

The following tables summarize some significant differences between the two test methods.<sup>2, 5, 6</sup>

#### *General Differences Between the Copper Reduction Test and Glucose Oxidase*

<i>Glucose Oxidase</i>	<i>Copper Reduction</i>
More suitable for non-insulin-using diabetic	More suitable for insulin-using diabetic
Dip in urine or pass through urine stream	Ten drops distilled water, five drops urine in standard five drop method (10 drops water, 2 drops urine in 2-drop method)
	Drop one Clinitest tablet into test tube
Difficult to determine amount of glucose because of discrimination of color shades	Determination of amounts to 2% (5% with special 2-drop method)
Specific for glucose	May register positive for any reducible sugar
Sensitive at 0.1% glucose	Sensitive at 0.25% reducing substance concentration
Usually want to see zero glucose to ensure the patient that his diet or oral hypoglycemic is effective	Usually want to see trace glucose to ensure the patient that he is not hypoglycemic

#### *Some Causes of False Positive Tests*

<i>Glucose Oxidase Method</i>	<i>Copper Reduction</i>
Specimen container contamination phenazopyridine (Pyridium®)	Acetanilide, p-aminosalicylic acid, antipyrine, ascorbic acid in large doses, bleach in collection vessel, cephalosporins, chloral hydrate, chloramphenicol, chlortetracycline (Aureomycin®), cinchophen, diatrizoate, fructose, galactose, isoniazid, lactose in pregnant or lactating women, levodopa, maltose, methenamine products, metaxalone (Skelaxin®), morphine, oxytetracycline (Terramycin®), penicillin (massive doses), probenecid (Benemid®), salicylates, streptomycin, sulfonamides, tetracycline, uric acid, dilute urine, tap or well water contaminants

#### *Some Causes of False Negative Tests*

<i>Glucose Oxidase Method</i>	<i>Copper Reduction</i>
Acid, alkali or chlorine residue in specimen containers; ascorbic acid (1-1.5g dose); aspirin (2.4g/day); ketones; levodopa; methyl dopa (Aldomet®); phenazopyridine (Pyridium®); refrigerated strips or urine specimen; uric acid	None known

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2. Is it safe to utilize minor tranquilizers such as Librium®, Valium®, and meprobamate during pregnancy?

The minor tranquilizers meprobamate (Equanil®, Miltown®), chlordiazepoxide (Librium®), and diazepam (Valium®), the latter two belonging to the benzodiazepine class, are among the most often prescribed drugs and therefore their teratogenic potential is of concern. Based on animal studies, package inserts of these products caution against use during pregnancy, and a general statement is made to the effect that the expected benefits of the drugs should outweigh the possible hazards to the mother and child.

Ringrose<sup>1</sup> reported two cases of teratogenicity associated with the use of minor tranquilizers. One report involved a patient who was first seen when eight weeks pregnant and gave a history of taking 15 mg diazepam daily for the six months prior to the visit as well as propoxyphene HCl (Darvon 65®). The infant, born at full term, manifested congenital absence of the left forearm and the radial digits and other limb deformities. The second case involved a woman who was seen 33 days after conception. She was given meprobamate and propoxyphene HCl for symptomatic relief of low back strain. The infant, born at term, had multiple anomalies including a defective anterior abdominal wall and congenital heart disease.

Milkovich and Berg<sup>2</sup> conducted a prospective longitudinal study of pregnancy and child health that included 19,044 live births to determine the teratogenic potential of the minor tranquilizers. They determined the incidence of severe congenital anomalies per 100 live births in children of mothers who had received prescriptions for meprobamate, chlordiazepoxide, other drugs, or no drug for minor psychoneurotic complaints (anxiety) during pregnancy. Rates of anomalies in the meprobamate and chlordiazepoxide groups when the drugs were taken in early pregnancy (the first 42 days) were higher (12.1 per 100 and 11.4 per 100 respectively) than in children of the other drug group (4.6 per 100) or the no drug group (2.6 per 100). When the reference date was later in pregnancy (43 days to termination), statistically insignificant differences in rates of the anomalies were observed among the four groups.

These data suggest that possibly meprobamate and chlor-

diazepoxide may be teratogenic if taken during the first six weeks of pregnancy.

In conclusion, until further data are available determining the safety of the minor tranquilizers, they should most likely be avoided during pregnancy.

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3. Do you have any information concerning the use of metronidazole (Flagyl®) in the treatment of anaerobic infections?

The most active drugs against various anaerobic bacteria include penicillin G, lincomycin (Lincocin®), clindamycin (Cleocin®), metronidazole (Flagyl®), chloramphenicol (Chloramycetin®), tetracycline, erythromycin and vancomycin (Vancocin®).<sup>1, 2, 3</sup>

Penicillin G is generally the best drug against all anaerobes, except for *bacteroides fragilis* which is the most commonly encountered and the most antibiotic-resistant anaerobe. Tetracycline, once the drug of choice for anaerobic infections, is no longer satisfactory without prior susceptibility testing, because many anaerobes are now resistant. Clindamycin and chloramphenicol are both very active against nearly all anaerobes. However, chloramphenicol, because of its serious and unpredictable toxicity should be reserved for very ill patients with inadequate bacteriologic data or for treatment of infection with organisms resistant to less toxic drugs.<sup>4</sup> Recently the use of clindamycin has been associated with pseudomembranous colitis.<sup>4</sup>

Metronidazole (Flagyl®), a systemic trichomonicide and amebicide used extensively since 1960, has recently been shown to be active against various anaerobic bacteria, including organisms which demonstrated significant resistance to many antimicrobial agents.<sup>5</sup>

Nastro and Finegold<sup>6</sup> conducted a study to evaluate the bactericidal activity of rifampin, 7-chlorolincomycin (a new antibiotic not commercially available), vancomycin, and metronidazole against *bacteroides fragilis*. Tetracycline, a bacteriostatic agent, was included for comparative purpose. Metronidazole and 7-chlorolincomycin inhibited all 19 strains tested at concentrations readily achieved in serum; however, only metronidazole was consistently bactericidal. All strains were resistant to vancomycin and eight were resistant to tetracycline. Rifampin, although generally very active, demonstrated properties suggesting that resistance to this agent may be a problem with anaerobes as it is with other organisms. The authors conclude that metronidazole might be of benefit in the therapy of infections due to *bacteroides fragilis* particularly endocarditis.

Mitre and Rotheram<sup>7</sup> treated a patient with anaerobic septicemia associated with thrombophlebitis of the internal jugular vein. A prompt clinical response to metronidazole, with an oral dosage of 1.5 gm daily, occurred after other antibiotics commonly recommended for anaerobic infections



had failed. The authors conclude that this case highlights recent observations that suggest an important role for metronidazole in anaerobic bacterial, as well as protozoal infections.

Tally, *et al.*<sup>8</sup> conducted a clinical evaluation of metronidazole in five patients with serious anaerobic infections. The drug was administered orally in a dose of 250 mg every eight hours and cured all five patients. No serious adverse reactions to metronidazole were noted. The authors concluded that the good response of the patients indicated that this drug may have a significant role in the treatment of anaerobic infections.

In conclusion, metronidazole seems to be effective against anaerobic bacterial infections, especially *bacteroides fragilis*, and has a low incidence of toxic reactions. The drug deserves further evaluation in the management of these types of infections.

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<sup>2</sup>Anon.: *Handbook of Antimicrobial Therapy*. New Rochelle, New York, The Medical Letter, Inc., 1974. p 17.

<sup>3</sup>Barker B M and Prescott F: *Antimicrobial Agents in Medicine*. London, England, Blackwell Scientific Publications, 1973. p. 141-246.

<sup>4</sup>Ramirez-Ronda C H: Incidence of clindamycin-associated colitis. *Ann Intern Med* 81:860 (Dec) 1974.

<sup>5</sup>Tally F P, *et al*: Metronidazole versus anaerobes. *Calif Med* 117:22-26 (Dec) 1972.

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# CLINICAL NOTES

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## Lithium Toxicity Precipitated by Diuretics

Elmar G. Lutz, M.D./Passaic

The use of lithium has revolutionized the treatment of manic-depressive illness and has proved beneficial in other neuropsychiatric conditions. Lithium, a sodium antagonist, is therapeutically helpful by altering sodium transport in nerve and muscle and by effecting a shift toward intraneural metabolism of catecholamines. Lithium therapy, however, is demanding and requires diligent attention to sodium and fluid metabolism. A prerequisite to lithium maintenance is a normal salt and fluid intake and the avoidance of diuretics. The following case report illustrates this point:

### Case Report

A confusional state, with disorientation and indistinct speech, occurred in a 53-year-old woman on lithium carbonate† maintenance treatment for manic-depressive illness, following the administration of 25 mg. each of spironactolone and hydrochlorothiazide†† three times daily for a period of 19 days. Both diuretics were independently

prescribed by a medical consultant for associated intermittent arterial hypertension. The serum lithium level prior to the confusional state had been reliably maintained between 0.65-1.0 mEq/liter (normal therapeutic range 0.5-1.0 mEq/liter) for the past four years on lithium carbonate 250 mg. three times daily. Routine serum lithium determination on the eighteenth day following the in-take of Aldactazide<sup>®</sup> was 1.48 mEq/liter.

The clinically manifest toxicity, further demonstrated by hand tremor and diarrhea, subsided rapidly within one and one-half days following the decrease of hydrochlorothiazide from one tablet three times daily to one-half tablet twice daily and of lithium carbonate to 300 mg. twice daily. There has been no recurrence of toxicity and the serum lithium level became re-established in the therapeutic range.

While the serum lithium level might have been even higher than 1.48 mEq/liter in this patient at the time of acute intoxication, it should be mentioned that patients who are abnormally sensitive to lithium may exhibit toxic signs at serum levels of 1.0 to 1.5 mEq/liter.

The acute toxic effect of lithium in this patient could be explained on the basis of acute dilutional hyponatremia as the result of low salt diet plus excessive water intake plus intensive diuretic therapy. Gershon,<sup>1</sup> in his extensive review of the problems connected with lithium therapy and toxicity, mentions polydipsia and polyuria as late effects of chronic lithium administration, in the absence of other associated signs of lithium toxicity. Polydipsia was present in this patient but preceded lithium therapy; it was viewed as a compulsive symptom, possibly

\*From the Department of Neuropsychiatry, St. Mary's Hospital, Passaic, New Jersey.

†Eskalith<sup>®</sup>, Lithane<sup>®</sup>, Lithonate<sup>®</sup>

††Aldactazide<sup>®</sup>

associated with cyclic disturbances or lability of the diencephalic-pituitary-adrenal axis which has been postulated to exist in manic-depressive illness. Relatively low-salt diet had been adopted by this patient many years prior to lithium therapy as a mode of life.

The incidence of electrolyte disturbance associated with the oral diuretics is surprisingly high. Chlorothiazide and hydrochlorothiazide in recommended dosage have been reported to decrease potassium levels to below 3.5 mEq/liter in 20 percent of cases; hypochloremic alkalosis has been reported in 10 percent of cases and decrease of serum sodium more than 8 mEq/liter has been found to occur in 8 percent.<sup>2</sup> The widespread use of oral diuretics carries an unjustified assumption of safety. The entire electrolyte picture is altered by diuretics, the uninformed use of which may lead to a wide variety of psychiatric symptoms. In the patient on lithium treatment, their natriuretic effect becomes dangerous. There is a direct relationship between sodium in-take and lithium excretion: The higher the sodium in-take, the greater the lithium excretion; the lower the

sodium in-take, the greater the lithium retention. "The sodium content of the diet and urine volume are the crucial parameters determining lithium excretion."<sup>3</sup> Increased sodium in-take and increased urine volume significantly increases urinary lithium excretion when a constant lithium dose is given over a long time period.

Lithium therapy, to be effective and safe, requires close medical supervision and an informed, motivated and reliable patient. It is vital that the physician have an intimate knowledge of drug interactions for the care of a typical patient who now receives an average of ten different drugs during one period of hospitalization.

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## Preoperative Breast Xeroradiography Needle Localization\*

William E. Matthey, M.D., Livingston

The frequency of calcification in breast cancer by mammography varies from thirty-five to forty percent (Gershon-Cohn, *et al.*<sup>1</sup>), thirty-five to forty-five percent (Egan<sup>2</sup>), fifty and nine-tenths percent (Wolfe<sup>3</sup>), and sixty-three percent (Zuckerman<sup>4</sup>). The likelihood of cancer, especially of intraductal carcinoma and lobular carcinoma *in situ*, is increased with clustered tiny calcifications on clinical mammography.<sup>5,6,7</sup>

The radiologist's problem is to localize a non-

palpable lesion or microcalcifications within the breast in two dimensions by two or more film projections. This is not always satisfactory, however, since the position of the patient during biopsy (recumbent) is quite different from the position for filming (upright). The surgeon's problem is to obtain a representative biopsy of a nonpalpable lesion, with or without microcalcifications visualized on xeromammography or to isolate and excise suspicious-appearing clustered microcalcifications demonstrated on xeromammography.

Previous methods of radiological detection include compression mammography,<sup>8</sup> strip tape numbering of the breast with xeromammography,<sup>9</sup> local anesthesia and double needle preoperative mammographic localization,<sup>10</sup> and single needle, prior-surgery biopsy with Du Pont Lo-Dose mammography without anesthesia.<sup>11</sup>

\*This study is from the Saint Barnabas Medical Center, Department of Radiology, Livingston, New Jersey, where Dr. Matthey is Director of the Department.



The following inexpensive, rapid practical method enables the surgeon to perform breast biopsy with the help of xeroradiography.

### Case Report

A 59-year-old female had xeromammography which revealed a non-palpable, painless, suspicious mass without associated microcalcifications in the left breast. The morning prior to biopsy a 22 gauge needle was positioned near the suspicious area (Figures 1-A and 1-B). This position was monitored by craniocaudal and lateral xeromammograms. (see Method) The needle remained taped in position without displacement or significant discomfort. The mass was excised and the specimen roentgenographed to assure removal of the non-palpable mass. The pathological diagnosis was fibrocystic disease without malignant changes; no calcifications associated with the mass.

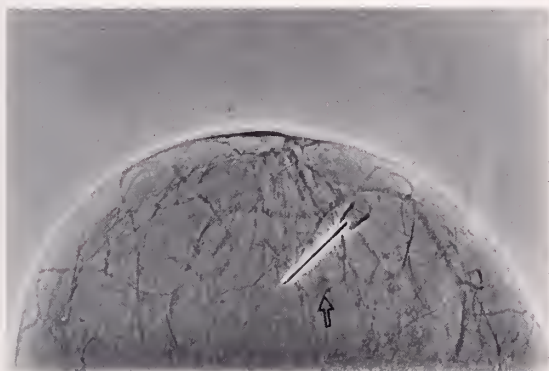


Figure 1-(A) — Craniocaudal xeromammogram with 22 gauge needle in place. Tiny non-palpable mass near needle tip. No microcalcifications present

### Method

The percutaneous needle placement is performed immediately prior to biopsy. A sterile disposable Yale 1½ inch 22 gauge needle is passed through the left breast skin without anesthesia to the region of suspicious microcalcifications or nonpalpable lesion visualized from the two planes (craniocaudal and lateral) of xeromammography. Craniocaudal and lateral breast xeroradiographs are obtained. If the needle tip is at or very near the microcalcifications or nonpalpable mass, the needle is taped securely into place. There is no significant discomfort nor complication from this procedure, which assures accuracy and reduction in size of the biopsy specimen.

### Summary

Xeroradiography of the breast with preoperative

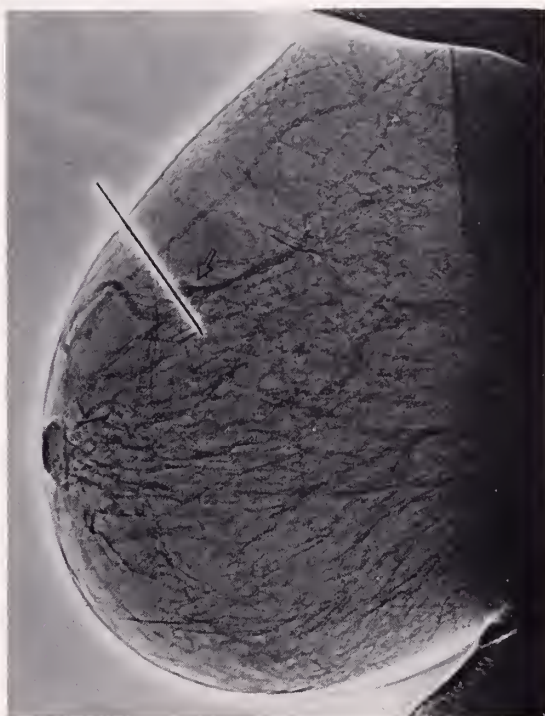


Figure 1-(B) — Lateral xeromammogram with 22 gauge needle in place. Tiny non-palpable mass near needle tip. No microcalcifications present

percutaneous needle localization is recommended for exact localization, excision and pathologic examination of nonpalpable lesions or microcalcifications. No discomfort or complications from this procedure have been encountered. Definitive localization aids in reduction in size of the biopsy specimen.

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## LETTERS TO THE JOURNAL

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### Why Not Include Sterilization?

January 20, 1975

Dear Dr. Krosnick:

I have just finished reading a rather good article in the December 1974 issue, *JMSNJ*, Volume 71, number 12, by Drs. Quartell, Gregori, and Breen of Livingston, which was, I feel, incorrectly entitled, "Contraception: A Survey of the Literature, Past, Present, and Future."

Despite the specific disclaimer in the article, I feel that it is quite misleading in that surgical contraception is deliberately omitted. Voluntary sterilization, a procedure of which over eight million Americans have availed themselves and hopefully benefited, should be described in detail in any article on contraception.

(signed) Ira Lubell, M.D.

February 26, 1975

Dear Dr. Lubell:

Thank you for your comments regarding our recent article on contraception published in the December 1974 issue of *The Journal of The Medical Society of New Jersey*.

While the subject of sterilization is indeed an important one, it was quite beyond the scope of what we were trying to write at this time. Physicians throughout New Jersey, and indeed the world, are faced, almost on a daily basis, with the problems of patients who are seeking a safe, effective, and reversible method of concep-

tion control. It is this problem to which we directed our thoughts and efforts.

A subsequent article will deal with the multiple facets pertaining to sterilization procedures.

(signed) Anthony Quartell, M.D.

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### Psychiatric Screening and Performance

March 11, 1975

Dear Dr. Krosnick

Your commentary on psychiatric screening of police candidates, etc., in the March 1975 issue is very poignant, however, we know nothing about the validity of such screening until it can be correlated with performance. Unfortunately, there is a paucity of research data as to what comprises good performance. Even the "Chicago Study," which is the best of the studies to date, is deficient in this respect. Only if it is determined what makes a "good cop" will psychiatric screening become a valid procedure.

Our department has been examining some three hundred candidates annually, and also has been conducting rather extensive research on performance criteria and its correlation with psychiatric screening. We have been frustrated by the Civil Service Regulations which negate rejection for psychiatric reasons unless the candidate is so seriously impaired as to be obviously emotionally ill. Hence, in this state, we cannot select those who will be the best policemen, but rather, are limited to hiring all except those who are obviously to be rejected.

As long as colleagues such as Dr. Smelson continue to work in their field, progress will continue, but we have a long furrow to hoe.

(signed) S. F. Kuvin, M.D., H. Shwed, M.D. (NPD)

THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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® Each capsule contains 50 mg. of  
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Neither inconvenient,  
unpalatable, expensive  
potassium supplements nor  
special K<sup>+</sup> rich diets are  
needed as a rule. Just  
'Dyazide' once or twice  
daily for control of edema.

For prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

**Indications:** Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

**Contraindications:** Pre-existing elevated serum potassium. Hypersensitivity to either component. Concomitant use in progressive renal or hepatic dysfunction developing hyperkalemia.

**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac arrhythmias. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly patients). If hyperkalemia develops, substitute a

thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in

cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

**Supplied:** Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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'Dyazide' gets excess water and salt out  
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Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Acute, recurrent or chronic non-obstructed urinary tract infections (primarily pyelonephritis, pyelitis, and cystitis) due to susceptible organisms. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials, including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

**Contraindications:** Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

**Warnings:** Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

**Adverse Reactions:** *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

**Dosage:** Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

*Usual adult dosage:* 2 Gm (4 tabs or teasp.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

*Usual child's dosage:* 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

**Supplied:** Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



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In tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**INDICATIONS:** *Therapeutically*, used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

**CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where

absorption of neomycin is possible. In burns where more than 20 percent body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Department.



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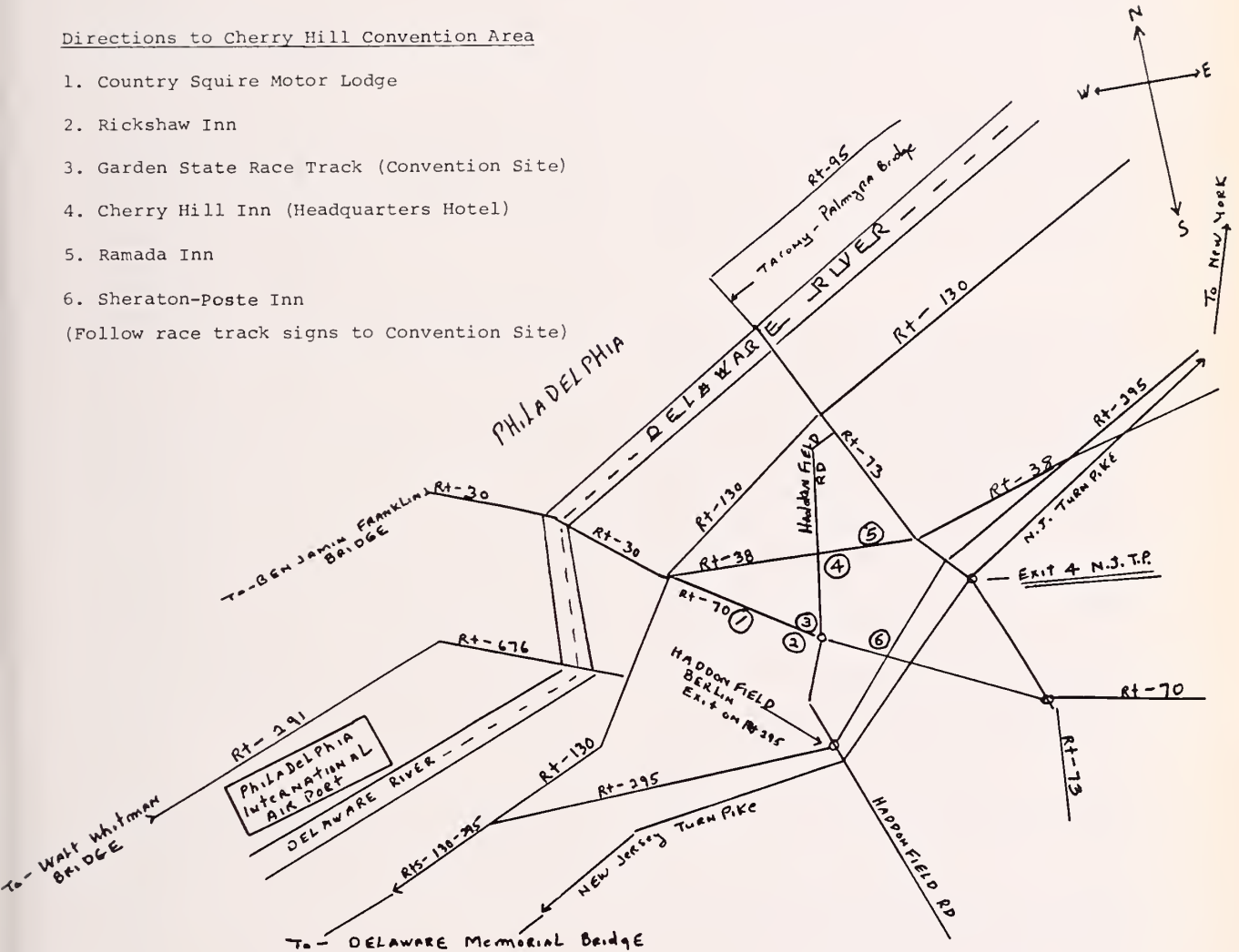
# 209th Annual Meeting

## Garden State Convention Center

### Area Map of Site

#### Directions to Cherry Hill Convention Area

1. Country Squire Motor Lodge
  2. Rickshaw Inn
  3. Garden State Race Track (Convention Site)
  4. Cherry Hill Inn (Headquarters Hotel)
  5. Ramada Inn
  6. Sheraton-Poste Inn
- (Follow race track signs to Convention Site)



*From Philadelphia* — Benjamin Franklin Bridge to Rte 30 to Rte 70 East to Center (racetrack) on left. Approx. 5 mi.

*From Philadelphia International Airport* — Penrose Ave. East (Rte 291) to I-676 East (Walt Whitman Bridge) to Rte 130 North to Circle, East on Rte 70 to Center (racetrack) on left. Approx. 12 mi.

*From Trenton* — I-295 South to Rte 70 West to Center (racetrack) on right. Approx. 35 mi.

*From Atlantic City/South Jersey* — North-South Freeway (Rte 42) to I-295 North to Rte 70 West to Center (racetrack) on right. Approx. 50 mi.

*From New York/North Jersey* — NJ Turnpike South to Exit 4; Rte 73 West (one block) to I-295 South to Rte 70 West to Center (racetrack) on right. Approx. 85 mi.

*From Baltimore/Washington* — Baltimore Harbor Tunnel to I-95, Delaware Memorial Bridge, NJ Turnpike North to Exit 4, Rte 70 West to Center (racetrack) on right. Approx. 140 mi.

*From Harrisburg/Points West* — Pennsylvania Turnpike to Valley Forge (Exit 24), Schuylkill Expressway to Benjamin Franklin Bridge to Rte 30 to Rte 70 East to Center (racetrack) on left.



## Thoughts Concerning the Care of the Terminal Patient

While one of the functions of the specialist in obstetrics and gynecology is to assist at the "coming in," another is to assist at the "going out." Inasmuch as all of our patients, and we ourselves, must sooner or later die, it might be natural to assume that the care of the dying would receive more attention than it does. It is probably redundant to state that it is often impossible even for the most experienced to determine just when the process of dying begins. No two patients die exactly alike, and death finally triumphs in multifarious ways.

The process of dying is progressive and not really a simultaneous failure of all vital functions. In speaking of the care of the dying, we should realize that, according to the oldest adage, the process usually starts from below upwards. The sensation and power of motion, as well as reflexes, are lost in the legs before the arms; and in the intestinal tract the anal sphincters relax, peristalsis ceases, and the stomach distends, before the patient can no longer swallow. Under such conditions, the folly of attempting to give medicines by the mouth is apparent, for it will be regurgitated; so here we get into intravenous fluids and hyper-alimentation, if there is hope for rejuvenation and some degree of "worthwhile" survival. The absurdity of forcing fluids becomes even more glaring when such fluids enter the trachea and give forth an "iatrogenic" death rattle.

As long as the patient can swallow, fluids should be given. Except for the drawing in of the breath, sucking is the body's "last," as it is the "first," instinctive action. Thirst is our first and last craving. The complaint just before death on the cross was "I thirst."

Although the patient's mouth is generally open in the last hours, we must not forget the biblical phrase of the "tongue cleaving to the top of the mouth." Tremendous misery may result from the lack of saliva in a terminal phase, but nurses can prevent this by applying bits of ice enmeshed in gauze, or adding vaseline to the tongue. It is interesting that when ice is placed in gauze, its

moisture evaporates without bringing about the tracheal ingestion of fluid. On the other hand, we fear aspiration by patients where there is too much fluid in the mouth. In such situations, the patient should be turned on her side to allow for gravity drainage.

We should realize that just a simple change in posture often relieves the dying patient's general discomfort. When patients are in-extremis, or unconscious, and are found lying flat on their back, it is because they are not able to make known their need for help or to shift themselves from that position; they may still appreciate the comfort that a change affords, nevertheless.

When respiration is labored, "dilating" the upper half of the thorax is beneficial, i.e., as Florence Nightingale pointed out in her notes on nursing, it is important to pillow the head so that the neck shall not flex on the body and therefore allow for better oxygenation. As peripheral circulation diminishes, there is usually an increased amount of perspiration. The body's surface cools regardless of the temperature of the room. It is important, therefore, to sponge the patient, to change linens often. Bladder distension, which we so often overlook, may require urinary drainage.

In addition, the patient's hospital area should be well illuminated, for "the chamber should be well lighted as the patient enters the valley of the shadows." Dying patients, as long as they are able to, instinctively turn toward light. Some will even complain of growing darkness. As sight and hearing diminish, the dying see only what is near and hear only what is distinctly spoken to them. I think the most imperative thing we as physicians must do is to be present and to give that final support, whether it is to touch, hold a hand, or take a pulse. It has been stated that many enjoy soothing music, and in the Feierabendhaus of the Deaconess Hospital in Germany, where the dying are more beautifully cared for than anywhere else in the world, hymns are played for them on the organ in the adjoining chapel.

It is stated that dying is always easy at the last, and however great the previous suffering, there does seem to be an interval of peace. For instance, William Hunter, the great anatomist, retaining his consciousness to his last breath, whispered just before he died, "If I had strength enough to hold a pen, I would write how easy and pleasant a thing it is to die." In Dr. Edward Hammond Clark's visions which were edited by Oliver Wendell Holmes, there is given an account where, prior to death, arrangements were made for patients to render finger signals; to the very last, after patients appeared to have lost consciousness, they signaled "No" to the question, "Are you suffering?"

We must also remember that it may be easier, in many cases, for the physician, against his own judgment of what is best for the patient, to surrender to the prejudices or desire of agonizing relatives who do not understand, and so cannot accept facts. Here, all the physician's patience, tact, sympathy, and, above all, firmness, are needed.

Fortunately, if discomfort and suffering are a component of dying, they can be relieved medicinally. It is most ridiculous to have a nurse state that the patient is now getting morphine every two instead of every four hours when the patient is dying; as if, "Lo and Behold!" beyond the "Pearly Gates" we will have unleashed a morphine addict. Any medication we use today should be effective; if not, the dose is too small or not administered frequently enough. There is no limit to the amount that may be required, and, as the terminal phase approaches, a full grain of morphine, every hour, may not be sufficient.

We do not have to prove that the dying need constant medical attention. Under supervision nurses may give most of the service needed, but it is unfair to expect that they will do it all. Even if watchful expectancy alone is needed, the physician must not underrate the importance that his mere presence will afford in steadying and comforting not only the dying patient, but her family. While apparently doing nothing, he may be doing a great deal.

So far, we have only considered some of the physical aspects of dying. Such knowledge is es-

sential, but the actual treatment of dying (and it is a treatment factor) depends upon the physician's appreciation of his own patient's personality. Such an appreciation falls truly into "the art of medicine," something that we may be rapidly losing. In the practice of this art, it often does not matter what medicine is given, but rather what we give of ourselves along with our medicines. Until the physician has had the sad experience of standing by those who are dearest to him as they died, can he imagine the anguish of the dying patient's family and their tremendous need for support and sympathy. In actuality, we cannot imagine the comfort that even the touch of a friendly hand can give until we approach our own death.

I agree with Sir Benjamin C. Brody who said, "I have been envious to watch the state of dying persons, and I am satisfied that, where an ordinary observer would not for an instant doubt that the individual is in a state of complete stupor, the mind is often active at the very moment of death." This was further endorsed by Dr. William Munk, in his article on euthanasia, and by Sir William Osler's nurses who noted, "we for some time took down the exact words of dying patients, and the great majority of patients gave no sign, one way or the other, like their birth, that death was a sleep and a forgetting." It must be further observed that Wordsworth's "a sleep and forgetting" is more characteristic of stillbirths than it is of live births.

No real study of the mentality of the dying would be complete without discussing their visions. We have noted many poor souls who are perfectly happy in talking to non-existent husbands and relatives or to people who expired many years ago, or discussing events that occurred in their childhood. To quote Dr. Clark, "If life is continuous, heaven beyond, and death the portal, is it philosophical to affirm that no one entering that portal has ever caught a glimpse, or even can catch a glimpse, before he is utterly freed from the flesh?"

Most patients have the feeling that death is near. Some know it well enough, and yet, want nothing said about it. Or perhaps, while they like to talk of it with the doctor and nurses, they cannot bear to speak of it to their families. Some

families, on the other hand, prefer not to be told the truth and are particularly anxious that nothing be said to alarm the patient. In other cases, perfect frankness all around is wanted. This may be a comfort to the family at the time or later in retrospect. Much of the uncertainty as to what should be said or unsaid generally relates to unawareness that death is almost always preceded by a degree of willingness to die. The acceptance of approaching death is its natural accompaniment. (Table) Sir Henry Holland said, "No previous reason or feeling can afford a right estimate of the relation the mind assumes to death in the latter hours of life, even when no impairment of its faculties has occurred." This is especially true when long and painful illnesses precede death. Even without sickness or suffering of any kind, the mere diminution of vital power by the decay of malignancy produces the same effect. The earnestness to live abates as the possession of life is gradually withdrawn.

#### *The Five Stages in Accepting Death*

*Denial* — The patient may feel the physician is wrong, or the x-rays are wrong.

*Anger* — This may be directed against physicians, nurses, or even God. "Why is this happening to me?"

*Bargaining* — By behaving well, the patient may buy the best care from the Staff. Also, he buys time from God, "If I am good, let me live longer."

*Depression* — The patient may cry and show visible emotions through this stage.

*Acceptance* — The patient makes final preparations and finishes his worldly business.

Human nature is such that uncertainty is probably the hardest emotion to bear. What we don't know, we fear the most, and therefore much of the distress of the family which, if allowed expression, would be disturbing and unfair to the dying patient can be controlled by the wise physician. The physician's duty and, in a way, privilege in attending the dying is to be comforting to the family.

Above all, let us remember that our duty to the patient ends only with her death, and there is much we can do for her comfort, the very least of which is to stand by her.

Normal babies perhaps can be cared for in groups but not old patients with terminal neoplasia. I am sure the perinatologist and neonatologist may disagree with this statement, but I think the female, in her terminal phase, needs more individual attention than the normal neonate.

Moreover, the treatment that is suitable for some patients may be decidedly unsuitable for others. The edict I always adhere to in gynecologic oncology, as stated so well by Dr. Alfred Worcester is "that a patient's comfort and not her impossible rejuvenation should be the physician's aim." Oliver Wendell Holmes summed up this philosophy when he said, "It is no kindness for science to reveal what nature is kindly concealing;" therefore, always allow the patient who will not live so long, to live as happily and as comfortably as possible.

In ultimate conclusion, Sir William Temple, three centuries ago, said, "In all diseases of the body or mind, it is happy to have an able physician for a friend, or a discreet friend for a physician."

James L. Breen, M.D.

#### Reference

Worcester, Alfred: *The Case of the Aged, The Dying, The Dead*. Springfield, Illinois, Thomas, 1961.

## 209th Annual Meeting

### Social Events

**May 31 — Cocktails-Dinner  
Continuous Entertainment-Dancing**

**June 1 — Inaugural Reception**

**June 2 — Dinner-Dance**



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\*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D. Double-blind study on the treatment of mentally confused patients. Reprinted from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

# 3

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# ANNOUNCEMENTS

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## Neurology-Neurosurgery Conference

The Pascack Valley Hospital in Westwood announces the following in its series on joint conferences in neurology and neurosurgery.

- |        |  |
|--------|--|
| May 12 | Severe head injury — neurosurgical viewpoint |
| June 9 | Severe head injury — medical viewpoint       |

Programs are held on the second Tuesday of each month from 11:30 a.m. to 12:30 p.m. and are fully accredited for category I of the AMA Physicians' Recognition Award. For further information, please write to the hospital or to Andrew L. Bender, M.D., 400 Old Hook Road, Westwood 07675.

## Current Topics in Psychiatry

The Fair Oaks Hospital in Summit announces the following programs in the 1974-1975 series on current topics in psychiatry. Dates and topics of subsequent sessions will be announced in future issues of *The Journal*.

- |         |   |
|---------|---|
| May 14  | Dynamics of Marital Interaction                   |
| May 28  | Therapeutic Intervention in Marital Maladjustment |
| June 11 | Behavioral Therapy                                |
| June 25 | Behavioral Therapy                                |

Sessions are held from 3 to 4:30 p.m. in the Conference Room at the Hospital (19 Prospect Street). Granville L. Jones, M.D., Director of Research and Education at Fair Oaks, will be moderator and further information is available by writing directly to him.

The programs are co-sponsored by the Academy of Medicine and are accredited for Category I of the AMA Physician's Recognition Award.

## CME Programs at Bridgeton Hospital

The Bridgeton Hospital announces the following continuing medical education courses to be held at the hospital at 6:30 p.m. on the Wednesdays and Thursdays indicated:

- |          |  |
|----------|--|
| May 14   | Sexual Disorders in Office Practice              |
| Sept. 11 | Endoscopy and Acute Problems in Gastroenterology |

- |          |  |
|----------|--|
| Sept. 24 | Congestive Heart Failure and Hypertension          |
| Oct. 9   | Acute and Chronic Brain Disease                    |
| Oct. 29  | Acute Psychiatric Problems                         |
| Nov. 13  | Techniques and Capabilities of Radiology Diagnosis |
| Nov. 26  | Pelvic Disease — Office Gynecology                 |
| Dec. 11  | Venereal Diseases                                  |

For additional information, please communicate with Sherman Garrison, M.D., Director of Medical Education, The Bridgeton Hospital, Bridgeton 08302.

## Seminar on Medical Director's Role in Nursing Facility

On Monday, June 16, 1975, at the Holiday Inn in Atlantic City, an all-day seminar on the role of the medical director in the skilled nursing facility will be presented by MSNJ in cooperation with the AMA. Cosponsors are the New Jersey Chapter of the American College of Nursing Home Administrators, the New Jersey Association of Health Care Facilities, the New Jersey Association of Non-Profit Homes for the Aging, and the New Jersey State Nurses' Association. Purpose of the meeting is to identify ways in which medical directors, nursing service directors, and administrators can engage in a team effort with attending physicians and allied health professionals to improve patient care. David Eckstein, M.D., Chairman of the Committee on Aging, MSNJ, is director of the seminar. Registration fee is \$15, which includes luncheon. The program has been accredited for six (6) hours in Category I, AMA Physicians' Recognition Award, the CME Program of MSNJ, and the American Academy of Family Physicians. Credits will be sought from state board of examiners for nursing home administrators. For further information, please communicate with Ms. Phyllis Chrismer, MSNJ, P.O. Box 904, Trenton 08605 — (609) 394-3154.

## Seminar on Ovarian Tumors

The New Jersey affiliate of the American College of Obstetricians and Gynecologists is sponsoring a seminar on ovarian tumors on Wednesday, June 25, 1975, at the Mercer



Medical Center in Trenton — 5th floor auditorium — from 9 a.m. to noon. Registration fee is \$5. The following program has been arranged:

*Classification and Pathology of Ovarian Tumors*

Warren R. Lange, M.D., Professor of Obstetrics and Gynecology and Assistant Professor of Pathology, Jefferson Medical College, Thomas Jefferson University, Philadelphia

*Endocrinologies of Ovarian Tumors*

Abraham Rakoff, M.D., Professor of Endocrinology and Gynecology, Jefferson Medical College, Thomas Jefferson University, Philadelphia

*Treatment of Ovarian Tumors*

James L. Breen, M.D., Director, Department of Obstetrics and Gynecology, St. Barnabas Medical Center, Livingston

The program has been approved for three (3) credit-hours in Category I of the AMA Physicians' Recognition Award and MSNJ's Continuing Medical Education Program. Collation will be served before the session convenes. For additional information, please communicate with Ralph W. Ellis, M.D., 333 West State Street, Trenton 08618.

**Behavioral Techniques Course for the General Practitioner**

Temple University Department of Psychiatry is offering a ten-week course, starting September

17, 1975, on theoretical and practical aspects of handling patients' complaints which have either a purely psychological basis or an organic basis amplified by psychological factors. Topics include relation techniques, psychosomatic disorders, sexual dysfunction, and phobias. The sessions are held on Wednesdays from 2 to 4 p.m.. Tuition is \$250. For additional information, please communicate with Ms. B.J. Foster, Behavior Therapy Unit, Temple University Department of Psychiatry, EPPI, Henry Avenue and Abbottsford Road, Philadelphia.

**Pediatric Radiology Colloquium**

The Duke University Medical Center will present a five-day course on current concepts in pediatric radiology from November 3 to 7, 1975, at the Pinehurst Hotel in Pinehurst, North Carolina. Members of the departments of radiology and pediatrics at the Duke University Medical Center and distinguished guests will comprise the faculty. Subjects include cardiopulmonary, gastrointestinal, genitourinary, and musculo-skeletal diseases, among others. Credit will be given for twenty-five hours under AMA Category I. Inquiries may be directed to Robert McLelland, M.D., Professor of Radiology, Box 3808, Duke University Medical Center, Durham, North Carolina 27710.

## **1975 ANNUAL MEETING**

**May 31 — June 3**

**Cherry Hill**

**Garden State Convention Center (Route 70 and Haddonfield Road)**

**Registration**

**House of Delegates**

**Scientific Programs**

**Exhibits**

**Governor's Conference on Delivery of Health Care**

**Cherry Hill Inn (Route 38 and Haddonfield Road)**

**Headquarters Hotel**

**Social Events**

**All scientific sessions accredited for Category I, AMA  
Physician's Recognition Award, and MSNJ's Continuing  
Medical Education Program**

# MEETINGS OF MEDICAL INTEREST

May

- 10 **Orthopedic Surgery**  
17 8:30 a.m. — Martland Hospital, Newark  
24 *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 10 **Basic Science for Surgeons**  
17 10 a.m.-12 noon — Martland Hospital, Newark  
24 *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 12 **Distinguished Lectures in Surgery**  
19 4-5 p.m. — Martland Hospital, Newark  
*(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 12 **Neurology and Neurosurgery Conferences**  
11:30 a.m. — Pascack Valley Hospital, Westwood  
*(Sponsored by Pascack Valley Hospital and Academy of Medicine)*
- 13 **Problems in a College Health Service**  
8 p.m. — 26 Troy Drive, Short Hills  
*(Sponsored by Academy of Medicine and Journal Club of Greater Newark)*
- 13 **Hepatitis Management**  
8 p.m. — Paul Kimball Hospital, Lakewood  
*(Sponsored by Academy of Medicine)*
- 13 **Fluid and Electrolyte Imbalance**  
12 noon — Hospital Center at Orange  
*(Sponsored by Academy of Medicine)*
- 13 **Proper Use of Laparoscopy**  
11 a.m. — Margaret Hague Maternity Hospital, Jersey City  
*(Sponsored by Academy of Medicine)*
- 13 **Proper Use of Blood Gases**  
10:30 a.m. — North Hudson Hospital, Weehawken  
*(Sponsored by Academy of Medicine)*
- 14 **Pulmonary Diseases**  
10-11 a.m. — St. Michael's Medical Center, Newark  
*(Sponsored by St. Michael's Medical Center)*
- 14 **New Diagnostic Techniques in Gastroenterology**  
21 **Aggressive Treatment of Stroke**  
28 **Gerontology**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
*(Sponsored by Bergen Pines County Hospital and Academy of Medicine)*
- 14 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
*(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)*
- 14 **Respiratory Failure**  
11:30 a.m.-1 p.m. — VA Hospital, East Orange  
*(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 14 **1974-75 Educational Seminars**  
9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
*(Sponsored by St. Clare's, Dover General, and Riverside Hospitals, and Academy of Medicine)*
- 14 **Respiratory Failure**  
2 p.m. — Martland Hospital, Newark  
*(Sponsored by CMDNJ — Martland Hospital Unit)*
- 14 **Dynamics of Marital Interaction**  
28 **Therapeutic Intervention in Marital Maladjustment**  
3-4:30 p.m. — Fair Oaks Hospital, Summit  
*(Sponsored by Fair Oaks Hospital and Academy of Medicine)*
- 14 **Distinguished Lectures in Neuroscience**  
21 10:30-11:30 a.m. — VA Hospital, East Orange  
28 *(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)*
- 14 **Clinical Interpretation of Diagnostic Laboratory Tests**  
28 3:30-5:30 p.m. — Rutgers Medical School, Piscataway  
*(Sponsored by CMDNJ, Rutgers Medical School, and Academy of Medicine)*
- 14 **Clinical Endocrinology**  
21 3:30 p.m. — Martland Hospital, Newark  
28 Beth Israel Medical Center, and VA Hospital, East Orange (varies)  
*(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 14 **Learning Disabilities**  
21 **Nutrition of the Aged**  
28 **Emotional Aspects of Common Medical Problems**  
9-11 a.m. — Middlesex General Hospital, New Brunswick  
*(Sponsored by Middlesex General Hospital)*
- 14 **Pulmonary Medicine**  
11 a.m. — St. Michael's Medical Center, Newark  
*(Sponsored by St. Michael's Medical Center and the Academy of Medicine)*
- 15 **Clinical Nephrology**  
22 4-5 p.m. — Martland Hospital Unit, Newark  
29 *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 15 **Basic Sciences and Clinical Applications**  
22 3:30-4:30 p.m. — Burlington County Memorial Hospital  
*(Sponsored by Burlington County Memorial Hospital and Academy of Medicine)*
- 15 **Programed Instruction in EKG Interpretation**  
8-9 a.m. — Overlook Hospital, Summit  
*(Sponsored by Overlook Hospital)*
- 15 **Anemic Patient**  
10 a.m. — Memorial General Hospital, Union  
*(Sponsored by Academy of Medicine)*

- 15 **Exercise Stress Testing and Prescription**
  - 17 East Stroudsburg State College, East Stroudsburg, Pa.  
*(Sponsored by American Heart Association (N.J. Affiliate) and Academy of Medicine)*
  - 16 **Family Practice Seminars**
  - 23 12:45-1:45 p.m. — Overlook Hospital, Summit  
*(Sponsored by Overlook Hospital)*
  - 16 **Antihypertensive Agents**
  - 2 p.m. — East Orange VA Hospital  
*(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)*
  - 16 **Advances in Immunology**
  - 9 a.m.-12 noon — Overlook Hospital, Summit  
*(Sponsored by Overlook Hospital and the Academy of Medicine)*
  - 18 **Diseases of Sexual Communication**
  - 10 a.m.-4 p.m. — Marriott Motor Inn, Saddle Brook  
*(Sponsored by Essex County Medical Society)*
  - 19 **Proper Use of Blood Gases**
  - 8 p.m. — Irvington General Hospital, Irvington  
*(Sponsored by Academy of Medicine)*
  - 19 **Cardiac Complications of Antidepressants and Tranquilizers**
  - 1 p.m. — VA Hospital, Lyons  
*(Sponsored by VA Hospital, Lyons, and Academy of Medicine)*
  - 20 **Proper use of Blood Gases**
  - 7 p.m. — Point Pleasant Hospital  
*(Sponsored by Academy of Medicine)*
  - 20 **Congestive Heart Failure**
  - 11:30 a.m. — St. Mary's Hospital, Orange  
*(Sponsored by Academy of Medicine)*
  - 21 **Current Status of Vitreous Surgery**
  - 7:15 p.m.-United Hospitals Medical Center, Newark  
*(Sponsored by Associated Eye Residencies of New Jersey, Eye Institute of New Jersey, and Academy of Medicine)*
  - 21 **Pathogenesis of Cancer**
  - 1:30-4:30 p.m. — St. Joseph's Hospital, Paterson  
*(Sponsored by St. Joseph's Hospital, CMDNJ-New Jersey Medical School, and Academy of Medicine)*
  - 21 **Joint Monthly Sessions of Clinical Interest**
  - 7-9 p.m. — VA Hospital, East Orange  
*(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)*
  - 21 **Seminars in Psychiatry**
  - 11 a.m.-12 noon — Overlook Hospital, Summit  
*(Sponsored by Overlook Hospital)*
  - 22 **Regional Chest Case Conferences**
  - 7:30 p.m. — The Medical Center at Princeton  
*(Sponsored by New Jersey Thoracic Society, and Academy of Medicine)*
  - 23 **Continuing Education Programs**
  - 6:30 p.m. — Bridgeton Hospital, Bridgeton  
*(Sponsored by Bridgeton Hospital and Academy of Medicine)*
  - 23 **Cardiology**
  - 8:30 p.m. — Bergen Pines County Hospital, Paramus  
*(Sponsored by Bergen County Heart Association and Lederle Laboratories)*
  - 23 **Proper Use of Blood Gases**
  - 9 a.m. — St. Elizabeth Hospital, Elizabeth  
*(Sponsored by Academy of Medicine)*
  - 23 **Ischemic Heart Disease**
  - 8:30 p.m. — Bergen Pines County Hospital, Paramus  
*(Sponsored by Bergen Pines County Hospital and Academy of Medicine)*
  - 27 **Psychiatry**
  - 8 p.m. — Warren Hospital, Phillipsburg  
*(Sponsored by Academy of Medicine)*
  - 27 **Clinical Implication of Genetic Theory of Schizophrenia**
  - 1 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*
  - 28 **Annual Awards Dinner**
  - 6 p.m. — Chanticleer, Millburn  
*(Sponsored by Academy of Medicine)*
  - 28 **Pulmonary Circulation**
  - 9 a.m. — Barnert Memorial Hospital Center, Paterson  
*(Sponsored by Barnert Memorial Hospital)*
  - 31 **Nephro-Pathology Conference**
  - 9:30 a.m. — Holy Name Hospital, Teaneck  
*(Sponsored by Holy Name Hospital and Academy of Medicine)*
- May 31-June 3**  
**Annual Meeting, MSNJ**  
Garden State Convention Center, Cherry Hill
- June**
- 1 **Family Practice Sections**
  - Cherry Hill Inn, Cherry Hill  
*(Sponsored by MSNJ, and New Jersey Chapter, Academy of Family Physicians)*
  - 3 **Psychiatric Case Conferences**
  - 7:30 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*
  - 3 **Tumor Clinical Conferences**
  - 11 a.m. — Morristown Memorial Hospital  
*(Sponsored by Morristown Memorial Hospital, American Cancer Society, and Academy of Medicine)*
  - 4 **Clinical Endocrinology**
  - 3:30 p.m. — Martland Hospital, Newark Beth Israel Medical Center, and VA Hospital, East Orange (varies)  
*(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
  - 4 **1974-75 Educational Seminars**
  - 9:30 a.m.-12 noon — St. Clare's Hospital, Denville  
*(Sponsored by St. Clare's, Dover General, and Riverside Hospital and Academy of Medicine)*



- 4 Gastrointestinal Cancer**  
**11 House Staff Symposium**  
**18 Clinical Pathology Conference**  
 9:30 a.m. — Bergen Pines County Hospital, Paramus  
*(Sponsored by Bergen Pines County Hospital and Academy of Medicine)*
- 5 Psychiatric Case Conferences**  
 7:30 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*
- 7 Orthopedic Surgery**  
 8:30 a.m. — Martland Hospital, Newark  
*(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 7 Basic Science for Surgeons**  
**14** 10 a.m.-12 noon — Martland Hospital, Newark  
**21** *(Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)*
- 9 Neurology and Neurosurgery Conferences**  
 11:30 a.m. — Pascack Valley Hospital, Westwood  
*(Sponsored by Pascack Valley Hospital and Academy of Medicine)*
- 10 Difficult Diabetic Patient**  
 8 p.m. — Paul Kimball Hospital, Lakewood  
*(Sponsored by Academy of Medicine)*
- 11 Angina Pectoris**  
 2 p.m. — Christ Hospital, Jersey City  
*(Sponsored by Christ Hospital and Academy of Medicine)*
- 11 Monthly Neuroradiology Meeting**  
 7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
*(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)*
- 11 Behavioral Therapy**  
**25 Behavioral Therapy**  
 3-4:30 p.m. — Fair Oaks Hospital, Summit  
*(Sponsored by Fair Oaks Hospital and Academy of Medicine)*
- 13 Antihypertensive Agents**  
 2 p.m. — East Orange VA Hospital  
*(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)*
- 18 Joint Monthly Sessions of Clinical Interest**  
 7-9 p.m. — VA Hospital, East Orange  
*(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)*
- 23 Hemorrhoidectomy Ligation and Cryosurgery**  
 7 p.m. — Englewood Men's Club, Englewood  
*(Sponsored by Englewood Surgical Association and Academy of Medicine)*
- 24 Hepatitis, Acute and Chronic**  
 11 a.m. — Perth Amboy General Hospital, Perth Amboy  
*(Sponsored by Academy of Medicine)*
- 24 Thyroid Diseases**  
 8 p.m. — Warren Hospital, Phillipsburg  
*(Sponsored by Academy of Medicine)*
- 25 Air Pollution**  
 9 a.m. — Barnert Memorial Hospital Center, Paterson  
*(Sponsored by Barnert Memorial Hospital)*
- 27 Endotoxic Shock**  
 9 a.m. — St. Elizabeth Hospital, Elizabeth  
*(Sponsored by Academy of Medicine)*
- 28 Nephro-Pathology Conference**  
 9:30 a.m. — Holy Name Hospital, Teaneck  
*(Sponsored by Holy Name Hospital and Academy of Medicine)*
- July**  
**3 Psychiatric Case Conferences**  
 7:30 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*
- Aug**  
**5 Psychiatric Cases Conferences**  
 7:30 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*
- Sept.**  
**2 Psychiatric Case Conferences**  
 7:30 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*
- 30 Management of Difficult Psychiatric Patient**  
 2 p.m. — Trenton Psychiatric Hospital, Trenton  
*(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*

## Governor's Conference on Delivery of Health Care

**May 31                      8:30 a.m.**  
**Convention Center**  
**Cherry Hill**

### Speakers:

**Hon. Brendan Byrne**  
**Hon. Lawrence J. Hogan**  
**LeRoy Pesch, M.D.**  
**Allen R. Nelson, M.D.**

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# OBITUARIES

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## Dr. Reuben J. Cohen

Word has just been received of the sudden death on January 25, 1975, of Reuben J. Cohen, M.D., a member of our Atlantic County component. Born in England in 1907 and educated in the Philadelphia public schools, the University of Pennsylvania, and Temple University Medical School, class of 1933, Dr. Cohen had practiced internal medicine in Mays Landing since 1957. Prior to that he had offices in Philadelphia and did graduate work in his specialty at the Henry Phipps Institute of the University of Pennsylvania. He had been associated with the Shore Memorial Hospital in Somers Point and was a Fellow of the American College of Chest Physicians. During World War II, Dr. Cohen served in the medical department of the U.S. Army with the rank of Captain.

## Dr. Joseph Donovan

One of Morris County's senior members, Joseph Donovan, M.D., for many years clinical psychiatrist at Greystone Park State Hospital, died on February 18, 1975, at the age of 78. A native of Canada, where he earned his medical degree from Queen's University in 1921, Dr. Donovan had first practiced general medicine there, and came to New Jersey in 1924 to pursue his interest in psychiatry. After retirement from Greystone Hospital in 1965, he maintained a private practice in psychiatry in Whippany.

## Dr. George A. Hess

One of Mercer County's well-known internists, George A. Hess, M.D., died suddenly on March 20, 1975. Born in Sengerville, Virginia in 1909 and a graduate of the Medical College of the University of Virginia, class of 1934, Dr. Hess came to Mercer County the following year and established a practice first in Titusville and then in Trenton. Board certified in internal medicine and a Fellow of the American College of Physicians, he had been on the active staff at the Mercer Medical Center for forty years, serving as chief of medicine from 1949 to 1970 and as director of the Department of Medicine for two

years during that time. His special field of interest was diabetes and he was a member of the American Diabetes Association and of its New Jersey affiliate. During the 1960's, Dr. Hess had an appointment also as assistant in the diabetes service at Abington Memorial Hospital in Abington, Pennsylvania. During World War II, he served for four years in the medical department of the United States Army.

## Dr. Jules J. Klain

Jules J. Klain, M.D., a member from our Cape May County component, died on January 31, 1975, after a long illness. A graduate of Hahnemann Medical College, class of 1928, Dr. Klain had offices in his native Philadelphia before coming to Cape May County in 1950 where he practiced general medicine in Palermo until illness forced his retirement. He was interested in civic affairs and had been health officer for the township in which he resided, in addition to serving several terms as mayor.

## Dr. Abraham Kovin

One of Passaic County's senior members, Abraham Kovin, M.D., died suddenly in Florida on March 4, 1975. Born in London in 1893, Dr. Kovin earned his M.D. degree from New York Medical College in 1918 and practiced briefly in Brooklyn before coming to Passaic County in 1921 to establish a general practice with special interest in dermatology. He had been on the staff at Passaic General and Beth Israel Hospitals in Passaic.

## Dr. Dominick A. Matturri

Word has just been received of the death on January 23, 1975, in Geneva, Switzerland, of Dominick A. Matturri, M.D., formerly of Jersey City. Born in 1902 and a graduate of the University of Naples Medical School in 1932, Dr. Matturri practiced general medicine, with special interest in chest diseases, in Hudson County until the early 1960's, when he moved to Rome, Italy. He continued to maintain membership in MSNJ. While in Jersey City, Dr. Matturri was associated with the Jersey City Medical Center, the Pollak Hospital for Chest Diseases, and St. Francis Hospital in Jersey City. He was a Fellow of the American College of Chest Physicians.

**Dr. Algernon A. Phillips**

We have just learned of the sudden death on January 29, 1975, of Algernon A. Phillips, M.D., a general practitioner from Newark. Dr. Phillips earned his medical degree from Howard University, class of 1927, and after internship came to New Jersey to establish a practice. He had been associated with St. Barnabas Medical Center in Livingston and St. James Hospital in Newark, and was a clinician in the venereal disease division of the Newark Health Department. Dr. Phillips was a member of the Academy of General Practice and the World Medical Association. He was 73 years old at the time of his death.

**Dr. Carl L. Pierson**

One of Mercer County's well known physicians Carl L. Pierson, M.D., died on March 2, 1975 at Mercer Medical Center in Trenton, where he had been associated with the departments of ophthalmology and otolaryngology for many years, as well as serving a term as president of the staff. Born in 1895, Dr. Pierson was graduated from the University of Pennsylvania College of Medicine in 1919. In addition to his affiliation with Mercer Medical Center, he had been on the attending staff at the Trenton Psychiatric Hospital and at the Wills Eye Hospital in Philadelphia. He was a member of the Academy of Ophthalmology and Oto-

laryngology and the prestigious New Jersey Society of Surgeons.

**Dr. David A. Stern**

David A. Stern, M.D., a senior member from the Essex County Medical Society, died on February 14, 1975, at the grand age of 87. Born in New York City, Dr. Stern was graduated from Bellevue (now New York University College of Medicine) in 1910 and came to New Jersey to establish a practice in internal medicine in the Newark area. His special interest was in endocrinology and he was associated in that field at the Newark Beth Israel Hospital.

**Dr. Frederick G. Wandall**

One of Gloucester County's senior practitioners, Frederick G. Wandall, M.D., died on February 27, 1975, at Underwood Hospital in Woodbury, after a prolonged illness. A graduate of the University of Pennsylvania College of Medicine, class of 1928, Dr. Wandall practiced general medicine in Clayton and in Pitman until illness forced his retirement. He was involved in medical society affairs and had served a term as President of the Gloucester County Medical Society. He had been physician to the Glassboro State College for many years and was active in service clubs in his area. Dr. Wandall was 74 years old at the time of his death.

**Annual Meeting Housing Facilities**

	Single	Twin	Parlor and 1 Bedroom	Parlor and 2 Bedrooms
Cherry Hill Inn (Headquarters)	\$20	\$30	\$65	\$93
Ramado Inn	\$20	\$30	\$59	\$93
Rickshaw Inn	\$20	\$28	\$64	\$102 (suite)
Country Squire	\$18	\$26	\$51	\$77
Sheraton Poste	\$24	\$30	\$60	—
Monticello Motor Lodge	\$18	\$24	\$40	\$60
Howard Johnson Motor Lodge	\$19	\$27	\$50	\$77

Free shuttle-bus service will be available continuously between housing and convention center. See map, page 447 for proximity of accommodations to meeting facilities. For reservations call the Convention Manager, Mrs. Wolton, (609) 394-3154



## **GYNECOLOGIC LAPAROSCOPY COURSE**

**May 15 & 16, 1975**

Roselle Park, New Jersey sponsored by  
New Jersey Fertility Foundation.

Contact: S. A. Wilchins, M.D.  
14 East Westfield Avenue  
Roselle Park, N. J. 07204

### **MEDICAL DIRECTOR**

(half-time), OB/GYN, Board Certified/Eligible needed for a new non-profit women's health center in Center City Philadelphia. Services to be provided include first trimester abortions, pregnancy testing, gynecological care and comprehensive counseling. Responsibilities for Medical Director include same clinical services, monitoring quality of medical care, implementing medical policies, recruiting medical staff, developing inservice training for medical and paramedical staffs. Must be committed to providing medical services to women in a dignified and supportive atmosphere. Salary negotiable. If interested, contact:

The Elizabeth Blackwell Health Center for Women  
Suite 1012  
112 South 16th Street  
Philadelphia, Pa. 19102  
(215) LO3-7577

### **CLINICAL PSYCHIATRISTS**

Positions available. Suburban N.J. location between NYC and Phila. Salary commensurate with experience and credentials (range \$20,030 to \$38,047). Hospitalization including major medical benefits, pension plan, life insurance, annual vacation, limited housing available. Contact Martin H. Weinberg, Medical Director, Trenton Psychiatric Hospital, Trenton, New Jersey 08625.

### **WANTED**

**House Physicians for July 1, 1975.**  
N.J. State Licensure Required.  
Excellent Salary, Hospitalization and  
Malpractice Insurance.

Contact:  
Joseph Ferrante, Jr., M.D.,  
Director of Medical Education,  
Passaic General Hospital,  
350 Boulevard,  
Passaic, New Jersey 07055,  
201-473-8000.

### **WYOMING**

Opportunities open for two Family Practice Physicians, Pediatrician and Internist to replace retiring Physicians plus new potential. New office space available on hospital grounds. Share call with existing physicians. Only 1½ hours away from Salt Lake-Ogden-Prava, Utah areas with four major universities including a medical school. Within 50-100 miles are located eight internationally known ski resorts — Alta-Brighton-Park City-Snow Bird, etc. Wyoming has the best hunting, snowmobiling, camping, etc. Away from all smog. Excellent community to raise a family. Contact E. Lynn Reed, Administrator, Memorial Hospital of Uinta County, Evanston, Wyoming 82930, (307) 789-3636.

## **PSYCHIATRISTS INTERNISTS AND PHYSIATRIST (CHIEF OF REHABILITATION)**

Attractive full and part-time staff opportunities at 1400-bed VA Hospital. Affiliated with Rutgers Medical School. Broad range of inpatient and outpatient services. Fully staffed by professional and paraprofessional personnel. Malpractice coverage provided at no cost by the Veterans Administration. In addition to an excellent salary, professional benefits package, teaching and research opportunities, we are located in an affluent rural community with excellent school systems, recreational facilities and easy accessibility to N.Y.C. and Penna. Contact Chief of Staff, VA Hospital, Lyons, N. J. 07939 — 201 647-0180. An equal opportunity employer.

# CLASSIFIED ADVERTISEMENTS

**ANESTHESIOLOGIST**—Board eligible. Nagpur University. Total eight years experience. Available July 1975. Purshotam B. Bhangdia, M.D., 9111 Church Avenue, Apartment 3N, Brooklyn, New York 11236. Telephone (212) 495-3013.

**GASTROENTEROLOGIST**—Desires association, solo practice. Board certified, fmg, 36 years. Expert in endoscopy, radiology, polypectomy. Private practice experienced. Write Box No. 125, c/o THE JOURNAL.

**INTERNIST**—Board certified, 45, Indian, Seeks incorporation, group, association. Available September 1975. Call (419) 927-9115 after six p.m. or write Box No. 116, c/o THE JOURNAL.

**OB-GYN**—Looking for practice to purchase — prefer northwestern New Jersey. Write Box No. 128, c/o THE JOURNAL.

**OPHTHALMOLOGIST**—Seeks association, partnership, group or hospital based practice. Board certified (1969). Married, age 33, on active university faculty. Write or call J. Durrani, M.D., 275 Hollister Drive, East Hartford, Connecticut 06118. (203) 568-7308.

**ORTHOPEDIC SURGEON**—Desires hospital, partnership, group or solo practice. Board eligible. Age 35, available July 1975. Write Box No. 131, c/o THE JOURNAL.

**PEDIATRICIAN**—Board eligible; Seeking position in well-baby and sick-baby clinic. Also trained in pediatrics of handicapped children; board eligible in psychiatry. Prefer area around George Washington Bridge. Available July 1, 1975. Write Box No. 127, c/o THE JOURNAL.

**PHYSICIANS WANTED**—Excellent opportunity to assume large family practice grossing in six figures. Office completely furnished. Present physician retiring. Practice available immediately and located in Atlantic City, New Jersey. Write Box No. 129, c/o THE JOURNAL.

**DERMATOLOGICAL PRACTICE**—To sell; very well established; Trenton, New Jersey, fully furnished as well as private home, where offices are located. Choice location. Write to Box No. 130, c/o THE JOURNAL.

**OFFICE TO SHARE**—New Brunswick, convenient to hospitals and transportation. Beautifully appointed, ample parking, ideal for allergist, dermatologist, ophthalmologist, psychiatrist or plastic surgeon. Available mornings, weekends and some afternoons. (201) 246-7888.

**FOR SALE**—North Jersey shore area. Home and office. Professionally designed, six-room office and nine-room colonial home on an acre of landscaped grounds. Area offers excellent schools and recreation facilities, as well as teaching and community hospitals. Private financing available. Write Box No. 97, c/o THE JOURNAL or call (415) 941-3710.

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1. Gertler, M. M., et al.: Geriatrics 25:134-148 (May) 1970.

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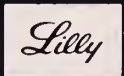
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# EDITORIALS

## John J. McGuire, M.D.



"The Outstanding Irishman of 1974"\* became the 183rd President of The Medical Society of New Jersey at the 209th Annual Meeting at Cherry Hill on June 1, 1975.

Doctor John J. McGuire, a thoracic and cardiovascular surgeon, has practiced in Essex County since 1939. He had his undergraduate education at Seton Hall University, received a B.S. degree in 1931, and proceeded to the State University of New York, Downstate Medical College, where his M.D. degree was awarded in 1936. After internship at Newark City Hospital and postgraduate surgical training at Hahnemann Medical College, Dr. McGuire served as a Lieutenant Colonel in the U.S. Marine Corps.

Our new President is senior attending surgeon at St. Michael's Medical Center in Newark and serves as emeritus thoracic and cardiovascular surgeon at St. Barnabas Medical Center in Livingston, St. Mary's Hospital in Orange, and the United Hospitals of Newark.

In addition to his surgical activities, Dr. McGuire is the Secretary of the State Board of Medical Examiners, liaison officer for the New Jersey Society of Thoracic Surgeons, hospital liaison officer for the American College of Surgeons, a member of the Council on Public Relations of MSNJ, a member of the President's Advisory Board of Seton Hall University, and a member of the Steering Committee of the Medical Opportunities Fund for the medical schools of New Jersey.

Dr. McGuire was a faculty member at New York University College of Medicine and is a past-president of the New Jersey Society of Surgeons, the Practitioners' Club of Newark, and the Physicians' Club of Essex County.

Dr. and Mrs. McGuire, the former Catherine Sheehan, are the parents of a daughter and three sons.  
A.K.

## Seven-Day Hospital Week

Innovative remedies are being proposed to rescue the health care delivery system from the ever-deepening economic morass in which it finds itself. Perhaps we should seek a reversion to the traditional, but now abandoned, work ethic of the seven-day week for hospitals. Preposterous, when the work day as well as the work week is universally being diminished? Not really, when desperate measures are needed. Further, since illness and disease fail to accommodate to the barriers of time and labor economics, the perspective of the business world is no longer applicable.

One wonders whether professional review boards and health insurance carriers, currently embroiled in the throes of compiling medical criteria and ascribing presumably appropriate hospital terms for given disease entities, are cognizant that, for the most part, the institutional weekend is dedicated to emergency situations and nursing care. While most doctors habitually make hospital rounds on Saturday and Sunday, the surgical, laboratory, and x-ray facilities are rarely available for anything but the

\*Personal Items: *JMSNJ* 72:266, 1975

most mundane, routine procedures except in special circumstances.

Many medical centers maintain a two-session program each day in the operating room. The community hospitals, however, generally terminate the surgical schedule at midday and a number of in-patients must, with forbearance, wait to be included in the next exclusive daily list, pointlessly wasting hospital time.

Every health facility could, no doubt, maintain an open surgical pavilion functioning throughout an extended working day. Certainly, many surgeons would find no difficulty in adjusting their daily programs to a plan, whereby morning sessions are designated for office practice and afternoons are devoted to the hospital and operating room. By the same token, a Saturday morning schedule would alleviate the pressure of the burgeoning work load and expedite the turnover of delayed cases, effectively diminishing hospitalization. The system, widely used, of preadmission testing has been most effective in reducing lag between actual admission and surgery.

It is common knowledge that a patient entering the hospital on a Friday or Saturday, may not have necessary x-rays taken until three or four days later because of the deluge that descends on the radiology department on Monday. Since virtually all medical institutions have more than one full-time radiologist, usually a group, it is reasonable to expect that arrangements can be devised to have all procedures, including gastrointestinal and vascular studies, executed on the weekend, each member of the professional staff alternating turns on duty and, in return, receiving free days during the week. Other medical associations have performed in this manner for many years.

The same rationale, of course, applies to the constant availability of a pathologist and a clinical laboratory capable of fulfilling every desirable week-day test. Thus the fullest exploitation of the hospital's resources can be exercised.

No one ever selects the day or hour of illness or infirmity and when these inadvertent circumstances arise, all the technical and

professional abundance of a well-run facility should be accessible for prompt amelioration. The interminable waiting list for admissions, a plague to the hospital and so torturous to patients, can be substantially curtailed.

There are those, particularly devotees of the status quo, who will protest that such a program would be economically prohibitive. It is apparent from current discussions with Blue Cross and other insurance carriers in the state that the present methods of fiscal management have not resulted in totally gratifying financial balance. Something less than enchantment has been expressed.

There is an old business adage that, on occasion, an initial expenditure must be made to produce a profit. The expense of increased personnel would easily be met by a vastly improved volume of hospital practice and activity. Certainly, with diminished hospital stay, greater and more expansive productivity of services, and an ever-increasing turnover of patients, the monetary income would not only be sufficient to meet projected budget increases, but would yield, besides financial stability, satisfaction to those who avail themselves of hospital treatment and confidence in those responsible for effective and efficient delivery of quality health care in this state.

Bernard D. Pinck, M.D.

## Congratulations — We Missed the List

New Jersey may have its problems with tuberculosis and other serious contagious conditions, but none of our cities made the list of "The Thirty Lousiest Cities in the United States in 1974" (or 1973). According to Dr. Leslie C. Norins\* of American Health Consultants, Providence, Rhode Island, held fast to the number one rank, Corpus Christi, Texas advanced from third to second, and Harrisburg, Pennsylvania made the large leap from fifth to third position in 1974 for infestation with *Pediculus humanus capitis* or *Phthirus pubis*.

A.K.

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\**Infectious Diseases* 5:16, January 1975



## Yvonne Bonitto Doggett



Yvonne Bonitto Doggett, the 1975-76 President of the Woman's Auxiliary to The Medical Society of New Jersey, has been an active and vigorous participant in business, in community affairs, and in many health-related organizations. Married to Frank B. Doggett, Jr., an Atlantic City family practitioner, Yvonne has served the Woman's Auxiliary as county president and advisory board member, and at the state level as an officer, member of the Executive Board, and chairman of several standing committees, before succeeding to the presidency.

Born and educated in New York City, including Columbia University, she has been a tireless volunteer to many civic and social organizations in Atlantic City and is a board member of the YWCA, Atlantic County Area Guidance Center, Atlantic City Art Center, and the Miss America Pageant. She serves the latter as an assistant director on its national production staff, and is a model and convention aide with the Atlantic City Models Guild. She is a member of the auxiliaries to the National Medical Association, the Atlantic City Medical Center, Children's Seashore House, Betty Bachrach Home, and the Ruth Newman Shapiro Cancer Memorial Fund, and has also been special events co-chairman for the local unit of the American Cancer Society.

Despite her many outside activities, Yvonne is a devoted homemaker and mother, channeling love and devotion to her daughter, "Missy," aged 9, her husband and his daughter, Leslie, a high school senior, and son, Frank III, a fourth year medical student. Travel, tennis, painting and sculpture, needlepoint, backgammon, and pinochle are her favorite pastimes. Mrs. Doggett has exhibited works of art locally and in our annual convention art show.

Her list of awards and achievements include 1970 Alpha Wife of the Year by her husband's fraternity, Alpha Phi Alpha, and the 1972 and 1973 Project Head Start Service Award "in recognition of outstanding service to the community through dedication to the war on poverty and the field of early education." A.K.

## Throw-Away Culture

Most of us gleefully disposed of the office autoclave and the laundry man a couple of decades ago and started using disposable supplies of every description. The natural extension of this doctrine has finally reached our language, according to one observer:

"Disposable thermometer, disposable word —"

"Most people are aware that hospitals are the prime example of the throw-away culture — and of course there are logical reasons for using disposable pans and hypodermic needles, and so forth. The process now may be nearing completion: A Dayton, Ohio hospital used some 200,000 'single-use thermometers' in a pilot program last fall, apparently to the satisfaction of staff and patients. The people at Bio-Medical Sciences in New Jersey, who manufactured the instruments, will no doubt be properly celebrated for this invention but inadvertently, perhaps, they have made another invention which should be roundly booed.

"In announcing the results of the pilot program in Dayton, Bio-Medical Sciences reports that, to insure proper use, the nursing and paramedical staff were 'inserviced' by professional representatives of BMS. *Not trained, but inserviced.*"

If not limited, the future extension of this "dumping syndrome" may descend to the most grotesque of concepts — disposable patients. This is the point where the medical profession must shout "stop!" A.K.

\*Page J K Jr: Phenomena, comments and notes. *Smithsonian* 5:10, January 1975.

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# ORIGINAL ARTICLES

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*"I am a man and nothing that concerns a man do I deem of indifference to me." Terence, 185-159 B.C.*

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## Delivering People Care Amid Change\*

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**John J. McGuire, M.D.**  
**South Orange**

A philosopher of our times named Alvin Toffler is always talking about the lag between the pace of environmental change and the limited pace of human response. He is interested in the rate of change and the powerfully upsetting psychological disease related to the acceleration of change. How does this affect medicine and what must we do?

We are living in an age of rising aspirations; some term it an age of unreasonable expectations. To people who do not have all the benefits they see, expectations may become demands without thought of the accomplishments which must be made to attain them. A generation has been reared that has become suspect of the word "discipline" and denial of desires seems to be a dangerous concept. Will hard times renew the patience and discipline necessary to achieve any real accomplishment? Or will those in public office attune to the public psyche and make easy promises to those who expect attainment to be easy. We have the Statue of Liberty in New York harbor. I believe that we should erect a Statue of Responsibility in San Francisco Bay so that the country will be reminded that there is no liberty without responsibility. Yet I have heard no public officials echo these sentiments lately. So, let's tune into the "ballgame" and see "where it's all at."

Our successes breed change. The combined efforts of medical research, the practicing physician, and the pharmaceutical industry have succeeded in increasing life expectancy. Then Medicare was passed. We can't keep things as they were because that would be to prevent success. It seems to me that the greatest problem we face is how to control change and how to live with it. We must learn how to direct change in a

complex environment so that some of the fundamentals we stand for are not destroyed or whittled away by political ambition playing upon consumer expectation like a fine instrument.

Continuing Medical Education in a changing scientific field is vital to good patient care, but keeping up there is child's play to keeping abreast of the fast-moving, political-social picture. And you don't even read the legislative bulletins and publications sent to you by the AMA and our State and County societies. I know this. Men who I know keep up with the very latest in their medical specialty, stop me at least once a week with something like, "John, you mean to tell me a legislative bill like that passed last month? What did we do about it?" I have always felt like saying, "The proposed bill and the way to help fight it were in the November *State Journal*, the County Society Council Actions published in the December Bulletin, and in Legislative Bulletin number 14, and a full explanation of what was happening appeared in Sunday and daily papers in January. Where were you when we called the meeting on it? I didn't see you at the public hearing in Trenton. Can you tell me how many legislators you informed of your view?" I never said it, but this brings me to my first point, we must all become pupils in the schools of political and social science and not miss a class.

The complexity of society has led to corporate structure and now more than 90 percent of workers, including professionals such as engineers and architects, work for someone else. Salaried workers may have difficulty in understanding that this is not the best state for everyone — including doctors. A special and dif-

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\*Inaugural address on the occasion of the author's induction into the Presidency of The Medical Society of New Jersey. Presented to the House of Delegates, second session, June 1, 1975, Cherry Hill.



difficult challenge faces the medical profession — to educate the public on why there is such a great difference in medical service, why, for most doctors, the absence of institutional shackles has such a great influence on their ability to provide good care.

This brings me to my second point, we must become educators and communicate with those outside our profession interested in health, that is, each and every citizen. There are those who believe that if you hire a good lawyer and a good PR firm the whole antagonistic “schmear” will be swept out to sea. Don’t you believe it! Constantly learning, projecting, communicating, and good public relations are the individual responsibility of each of you physicians. As I said, no politician would ever tell you that. But you gentlemen have already elected me to the highest and most honored office that a physician can reach in this State; I seek nothing further and can afford to tell you the truth.

There are plans afoot to put you on salary. There are plans to make actuaries out of you and put you on capitated service. Many of these HMO-IPA concepts have some good ideas. I happen to believe that they can exist side-by-side with more traditional modes of practice, and perhaps complement each other. I, for one, would join an open-walled system such as an IPA and treat the HMO patients who come to me from it, as well as the private patients who elect my services. But I don’t like the thinking that HMO’s are good, therefore everybody gets one. We must study the issue and make our thoughts known.

The relentless sequence of our time shows that success creates change, change creates new problems, and our success may turn to failure. The marvelous transportation systems based on petroleum are threatened by loss of fuel access. Our creation of abundance through industry and mass production creates pollution and congestion which can strangle us. The success of mass education is another success which creates problems. People are becoming assured of their competence to judge matters that are beyond their technical training, and they demand control over things in government and in private sectors that they do not really understand. In medicine, some people know just enough to be

demanding and critical, and perhaps to expect too much. Maybe it’s just I, but it seems that many more people feel they know enough to determine how medicine should be practiced than they did ten years ago.

Successful “images” from the past few generations haunt us. The image of the dedicated personal physician at home bedside now blocks public acceptance of specialization and treatment in the office and hospital. The image of the devoted professor with his students grouped closely around him stands in the way of modern mass education. The image of America as omnipotent leads people to expect our government to do everything, including running a local health-care center. They don’t even consider that it can’t run a post office, because the “image” is there.

We are trained in one generation and must function professionally in the next. We often automatically tend to pursue the direction of our training a generation late. And, what used to take a generation to change, now often changes in a few years, which brings me to my next point: that we must face situations that were foreign to our most revered professors and are foreign to us; we must study them and react rationally with the good of not only our profession but the good of our patient always uppermost in our mind. In His good care and in His service lies the rationale for the existence of our profession. If you keep fundamental purposes in mind when studying change, decisions for the future will be less complex.

The development of new factors which did not exist before makes the old patterns break down. The pressures of various groups within the health field on each other, plus new concepts and techniques, make it impossible to maintain the simple and easily understood patterns in which most of us physicians began our medical careers. The trick is to guide and direct this changing profession in orderly evolution, to avoid having it taken over by the most ponderous, the most wasteful, the least professional factor in the health care picture — the federal government.

Because of change our profession is often pushed to defending itself on other people’s terms, but we cannot be satisfied with counterpunching. We

must assess what needs to be done and put to work the well-known dedication of medical people. We must be sensitive to public attitudes and keep not only abreast, but ahead of changing aspirations and pressures. We must start the actions to continually improve our health-care system. This will put the medical profession onstream with the desires of the public. It will make medicine the leader rather than the victim of change.

We are no longer a cloistered science, but in the limelight of public attention. Because of medicine's successes, we now have constant exposure in the public media, in considerations of many groups, and in government. We must accept the fact that medicine will be constantly spotlighted, often erroneously and unfairly, as are all other subjects in the public domain. We must expect this and not hope to respond to each comment or misinformed accusation. All the energies and resources of the profession can be dissipated in trying to respond to the initiatives of others and failing to accomplish initiatives of our own.

To be tuned in by people, you have to be broadcasting on *their* wavelength. Decisions and actions we make must be based on understanding *their* viewpoints. Communication is a transaction, a give and take in both directions. We must get onstream with their attitudes and direct what we have to say along their channels, if it is to be accepted and productive.

Professional seclusion was part of the picture of medicine's less fruitful years. A price of its success is involvement with the whole mechanism of the world in which it functions. Physicians and their wives must become activators and opinion leaders to build systems in which unshackled medicine can perform the new wonders of which it is capable. Overcoming the challenges of medical science will be a hollow triumph if the profession now fails to overcome the new challenges it has created. We must take initiative in shaping our future. The most effective thing our enemies could do is to keep us busy chasing after each libel and alarm.

Here are a few things I hope to help you stress during my administration. The public must be told that the biggest weakness in our health care

system is the *patient*. Most of the health problems I am familiar with arise from the patient's own neglect: the refusal of thousands of mothers to get care before labor, to follow proper diet, to avoid drugs, alcohol, and other abuses; the gross intemperance of our affluent people in eating, drinking, smoking, avoiding exercise; the widespread failure to follow the doctor's advice; the high accident rate and the pollution of air, water, and noise that permeate our society. Medicine is blamed too much for infant mortality, heart attacks, cancer, accidents, and violence that Americans bring on themselves.

We already have the team concept of health care because we are a system and not just one man with a black bag. The system of care includes the doctor, the medical schools, the hospitals, the auxiliary personnel, nursing homes, insurance companies, drugs, sophisticated equipment, the patients, the atmosphere we live in, public attitudes, dollars, and government. As in any system, all the factors are inter-related and must develop together. If any one of these gets too much push, all are likely to get out of whack. Too many patients all at once, too many dollars pumped in, major changes in any part of the pattern create intolerable stresses on the rest of it. If the government throws billions into creating too many hospital beds, you may be assured that someone will be trying to fill them to keep the institutions solvent. Some in government believe that PSRO is progressing too slowly. I am happy that it is progressing at a leisurely pace as it is sure to have a big impact on the hospital picture. It is unfortunate, but no one believes in Pulaski's Law anymore — euphemistically stated this is: "You can't fool with everything."

Physicians and their organization must stress the separate responsibility of the physician, and the efforts of the AMA and its affiliated societies to lead the way in improving the operations of other aspects of the health care system. An example of this could be the efficient use of hospitals and seeing that patients receive the proper level of care.

Physicians and their wives must explain, educate, answer questions — in church, with the local press and broadcast media, and in politics. They must present a balanced, sound approach

to the advancement of health care.

We must become politically active because that is where the decision-making action is. We must make ourselves felt as citizens, or turn the fate of medicine over to those who understand it less.

We are now faced with helping to evolve a system with unshackled room to work, accep-

table to the public, that allows the use of modern technology and for technology yet to come, and most importantly — allows us to render good medical care and to treat our patients to the best of our ability. Medicine has never faced a greater challenge. I need your formidable talents, I need your help so that this generation of doctors proudly may leave its mark on the future.

375 Warwick Avenue, South Orange

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THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

P.O. Box 904, Trenton, New Jersey 08605



*Multiple cases of renal masses illustrating the use and value of diagnostic ultrasound are presented. In each case, the ultrasound scan and conventional radiographs are discussed. All diagnoses were confirmed by angiography, nephrotomography, or surgery. Utilizing criteria discussed, renal masses detected in many instances may be differentiated between solid and cystic lesions.*

## B-Mode Ultrasonography in the Diagnosis of Renal Masses\*

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**William E. Matthey, M.D.  
and Joel N. Bloom, M.D./Livingston**

Diagnostic ultrasound has important applications in the fields of neurology, cardiology, obstetrics and gynecology, and vascular surgery. The Department of Radiology at Saint Barnabas Medical Center has been gaining experience in the use of ultrasound in the diagnosis of abdominal disease of various organs. The purpose of this paper is to illustrate the use of ultrasound in evaluating mass lesions of the kidney.

### Principle

Ultrasound waves are very high frequency inaudible sound waves. These are produced in a transducer containing a piezoelectric crystal. In such a crystal electrical energy may be converted to mechanical energy and vice versa. The ultrasound waves may be transmitted through the body when the transducer is applied to the body surface. When the waves encounter an interface between tissues of different acoustical impedances at a right angle, some of the waves are reflected back toward the transducer. These are converted in the transducer to electrical energy which after processing may be displayed on an oscilloscope screen.

The display may take various forms. In A-mode presentation, the returning ultrasound waves or echoes may be displayed as vertical deflection from a horizontal base line. In B-mode presentation, they are displayed as bright dots on the oscilloscope screen. These are used when the transducer is stationary.

In B-mode scanning, the transducer is moved along a plane of the body and returning echoes from multiple tissue interfaces in the plane are displayed on the screen. These are stored as bright dots and in this manner a two dimensional cross sectional image of a plane of the body may be produced. B-mode scanning is the method employed in the Radiology Department at Saint Barnabas Medical Center.

### Method

The apparatus being used is the Picker Echoview.<sup>®</sup> A polaroid camera is used to photograph the oscilloscope screen when a permanent record of an ultrasound image is desired.

The scanning is performed with the patient in the prone position. Mineral oil is applied to the patient's skin to maintain acoustic coupling. The transducer is moved along a series of longitudinal and transverse planes at 1 or 2 cm. intervals in the area of the kidneys. In the area of interest, scans are made at both high and low sensitivities.

### Discussion

The principles and diagnostic criteria for evaluation of abdominal lesions by ultrasonography have been described as have some of the sources of error in the use of the modality. In recent years, several reports of

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\*From the Ultrasound Division of the Department of Radiology at Saint Barnabas Medical Center, where Dr. Matthey is Director of Radiology and Dr. Bloom is Assistant Attending Radiologist.

the use of ultrasound in evaluation of renal masses have been published.

The prime value of this modality lies in its ability to distinguish between cystic and solid masses. It can also demonstrate a complex mass, i.e. one containing both solid and cystic components.

The accuracy of this modality, when diagnostic criteria are rigidly applied, has been reported to be in the same range as conventional modalities such as nephrotomography and angiography. These results make the method particularly attractive in view of its advantages. It is non-invasive, not uncomfortable for the patient, and has no well-established toxicities. There is no exposure to injurious radiation. It may be used repeatedly to follow the course of a lesion. It is obviously valuable in the face of poor renal function or non-function or where the use of contrast material (allergy) or ionizing radiation (pregnancy) is contraindicated.

The place of ultrasonography in the evaluation of renal lesions has not been established. It has been suggested as a screening method, but most authors doubt its value in this regard. It would appear to be of most value after the presence of a mass lesion has been demonstrated by intravenous urography. If, by ultrasonography, it is cystic, cyst puncture has been recommended; if solid, angiography has been recommended.

## Case Reports

The use and value of a relatively new diagnostic modality, ultrasound, in the diagnosis of renal lesions is discussed. Several examples are presented.

**Case 1—**A 64-year-old female was admitted for oncologic evaluation. The patient was known to have carcinoma of the cervix treated with radiation therapy. The patient gave a history of having "congenital enlarged kidneys." The intravenous pyelogram revealed enlarged kidneys with poor definition of the renal outlines associated with stretching of the calyces and infundibula. This is typical of polycystic disease of the kidney. (Figures 1A and 1B)

**Case 2—**A 60-year-old male was admitted with a four-month history of right pelvic pain and hematuria. The physical examination was within normal limits.

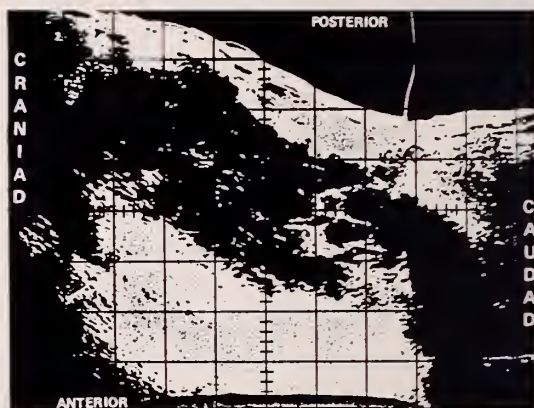


Figure 1-A

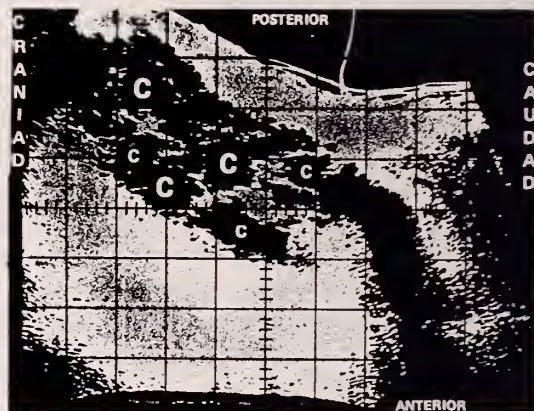


Figure 1-B

Figures 1-A and 1-B (Polycystic Disease) are longitudinal scans of a kidney at low and high sensitivity levels respectively. The kidney is large with multiple echo-free areas at low and high sensitivity (C=cyst).

Cystoscopy revealed prostatic enlargement. The intravenous pyelogram and retrograde pyelogram illustrated mass effect of the upper pole of the left kidney with distortion of upper and middle calyceal group. The renal angiogram revealed malignant neoplasm of the upper pole of the left kidney. (Figure 2)

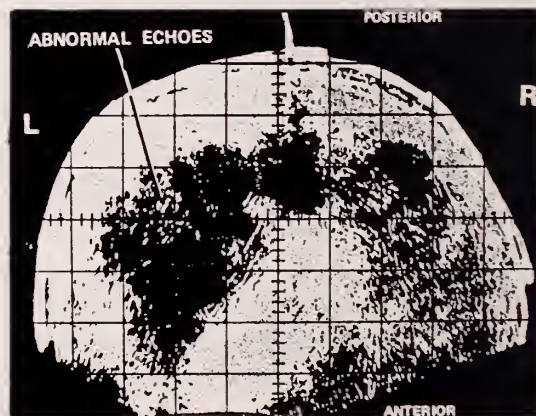


Figure 2—Note the abnormal peripheral echoes in the left renal mass appearing only at high sensitivity. This complex mass was a malignant tumor.



The bone scan showed metastatic disease involving the right hemi-pelvis. Nephrectomy was performed, the pathology report was adenocarcinoma, clear cell type.

Case 3—A 66-year-old female was admitted with a history of three episodes of painless hematuria during the past year. Physical examination was within normal limits. Intravenous pyelogram and retrograde pyelogram revealed a left renal mass causing considerable distortion of the calyces and infundibula. The left renal angiogram shows a large vascular lesion with avascular areas (probably necrotic) involving the lower two-thirds of the left kidney. (Figures 3A and 3B)

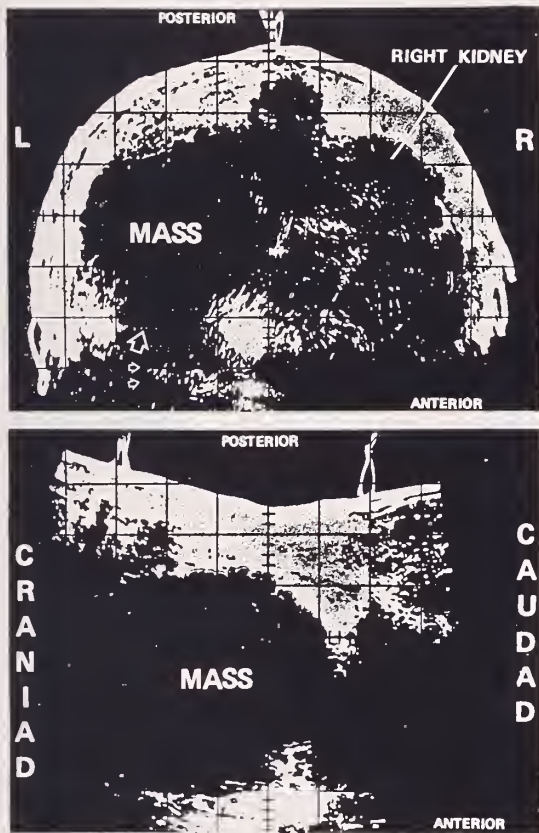


Figure 3—A and B are transverse and longitudinal scans of the kidneys. A large echo-free mass is demonstrated in the left kidney but no evidence of a well-defined far wall is demonstrated (large arrow). Poor through transmission of sound is noted (small arrows). Note the normal right kidney. Necrotic hypernephroma of the left kidney.

Case 4—A 51-year-old male was admitted with a recent history of intermittent urinary retention and hematuria. Intravenous pyelography showed a soft tissue mass arising from the lateral lower aspect of the left kidney causing minimal alteration of the lower pole calyces. The prostate was enlarged. The nephrotomograms showed a right renal mass producing a radiolucent defect in the cortex of the lower lateral portion of the right kidney. Right renal angiogram illustrates the renal arteries displaced and stretched around the mass. No arteries enter the mass which remains lucent and the wall is sharply defined. (Figure 4)

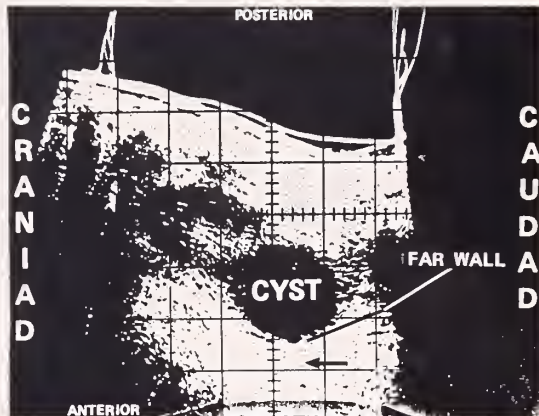


Figure 4—A cyst is demonstrated at the lower pole of the right kidney. The sharply-defined far wall and excellent through transmission of sound with dense echo pattern deep to the cyst are seen.

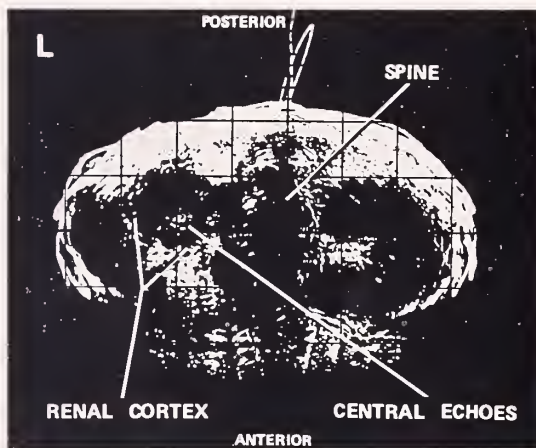


Figure 5-A

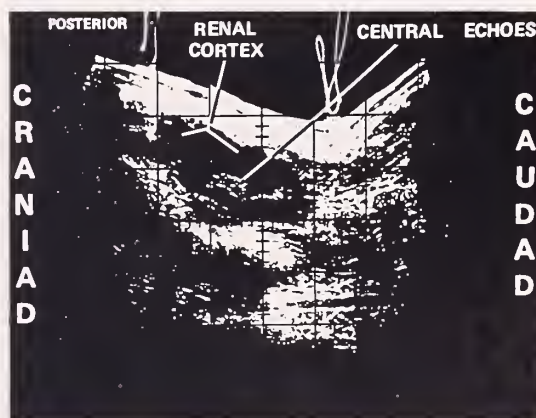


Figure 5-B

Figure 5—(Normal) A is a transverse scan of both kidneys. The central echoes due to the collecting system and large vessels in the hilum of the kidney are best seen in the left kidney. B is a longitudinal scan of the right kidney. Note the central echoes with renal parenchyma appearing transonic.



## Summary

The ultrasonic signs used to distinguish the types of lesions documented have been well described by several authors.<sup>3,8,9</sup>

A normal kidney ultrasonically has an expected reniform outline with a central collection of echoes representing the collecting system and large vascular structures. (Figures 5A and 5B)

A cystic lesion is demonstrated as a transonic mass, i.e., no interval echoes are observed. This must be true at both high and low sensitivity levels. The far wall of the lesion must be sharply defined and smooth. Echoes from structures deep to the lesion must be demonstrated. Multicystic, polycystic and hydro-nephrotic kidneys contain multiple lesions by

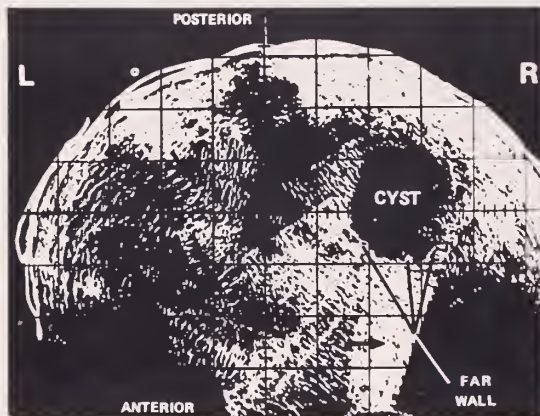


Figure 6-A

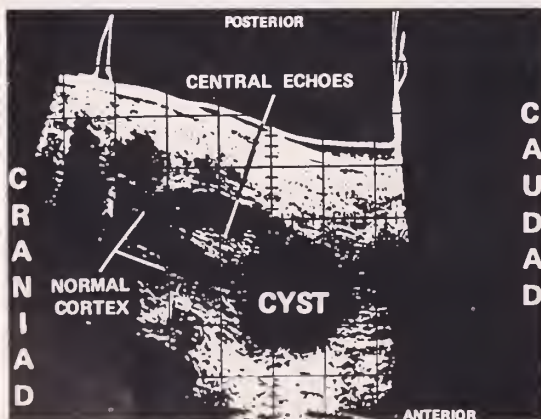


Figure 6-B

Figure 6—(Renal Cyst) A and B are transverse and longitudinal scans of the kidney illustrating renal cyst.

these criteria and may be further distinguished by the ultrasonic appearance of the renal tissue between the cystic areas. (Figures 6A and 6B)

A solid lesion, i.e., a tumor, has poorly defined margins with multiple internal echoes randomly arranged. These may be seen only at high sensitivity levels. (Figure 7)

A complex mass is one predominantly cystic in appearance but having some indistinctness or evidence of internal structure. (Figure 8)

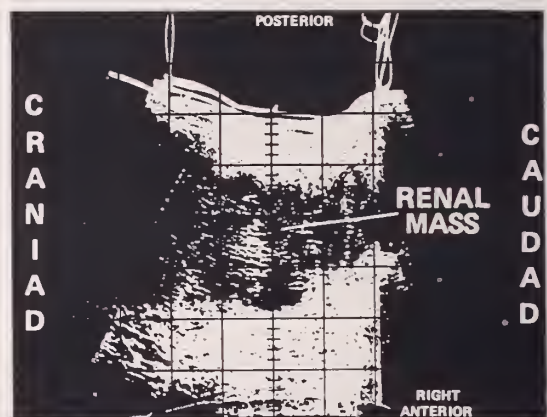


Figure 7—Solid lesion renal tumor

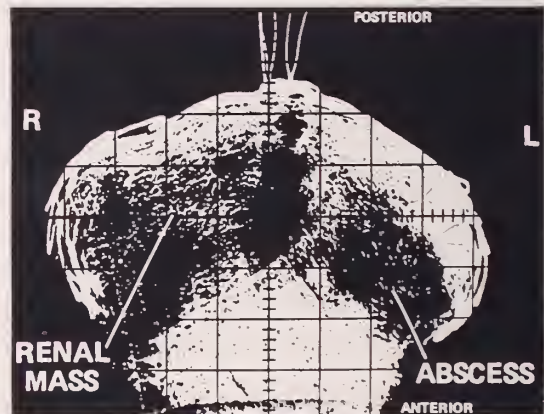


Figure 8—Complex mass with necrotic tumor

Doust, *et al.*,<sup>3</sup> have stressed rigid application of the criteria for the diagnosis of cyst. If they are not fully met, the diagnosis of cyst must be doubted.

Lesions smaller than 2 or 3 cm. have not been reliably demonstrated by ultrasound. In addition, solid intrarenal tumors may not be distinguishable from normal renal tissue.

Doust, *et al.*,<sup>3</sup> reported a diagnostic accuracy of approximately 90 percent in diagnosing renal lesions by ultrasonography. King<sup>8</sup> reported an overall diagnostic accuracy of 90 percent as well, but, of particular interest was the comparison of diagnostic accuracy of nephrotomography and ultrasonography in a group of confirmed cases of renal cysts. Ultrasonography was accurate in 88 percent of the cases while a thin wall (the primary nephrotomographic sign for diagnosis of benign cyst) was present in 50 percent of these cases. Other reports indicate somewhat lower accuracy rates for ultrasound but they are older series.

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Old Short Hills Road

## Oral Contraceptives Said to Increase Risk of Stroke

Young women using oral contraceptives who also smoke, have high blood pressure, or have migraine headaches, have a significantly increased risk of stroke, says a report in a recent issue of *JAMA*. But oral contraceptives alone, regardless of the other risk factors, increase the risk of stroke, says the report.

The report is by the Collaborative Group for the Study of Stroke in Young Women, Durham, North Carolina. Chairman of the nationwide study group is Albert Heyman, M.D., of Duke University Medical Center.

The study involved several hundred women age 15 to 44 years from the rosters of 91 hospitals in 12 cities. Control groups also were utilized. Each of the women in the study was interviewed for

detailed information on contraceptive practices, smoking habits, symptoms of headaches, and history of other illness. High blood pressure was found to be a risk factor for stroke among women who used oral contraceptives as well as among those who did not, but the risk is higher among those using "The Pill."

The researchers recommend: (1) oral contraceptives should not be used by women with high blood pressure; (2) cautious use of oral contraceptives by heavy smokers seems well advised; (3) oral contraceptives probably should not be used by women with classical or complicated migraine headache associated with visual disturbances or other brain deficits, nor by women whose headaches are aggravated by use of "The Pill."



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Overdosage may cause a curare-like action, with loss of voluntary muscle control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted.

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**Precautions:** Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with ulcerative colitis.

**Adverse Reactions:** Varying degrees of drying of salivary secretions may occur as well as mydriasis and blurred vision. In addition the following adverse reactions have been reported: nervousness, drowsiness, dizziness, insomnia, headache, loss of the sense of taste, nausea, vomiting, constipation, impotence and allergic dermatitis.

**Dosage and Administration:** The recommended daily dosage for adult oral therapy is one 15-mg. tablet with meals and two at bedtime. Subsequent adjustment to the patient's requirements and tolerance must be made.

**How Supplied:** Pro-Banthine is supplied as tablets of 15 and 7.5 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg.

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This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

**Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

**Contraindications:** Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—

both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy

patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine. **Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash; urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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#### SUMMARY OF PRESCRIBING INFORMATION

**INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

**Indication 1:** Management of nausea and vomiting and dizziness associated with motion sickness.

**Indication 2:** Management of vertigo associated with diseases affecting the vestibular system.

**Indication 3:** Management of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

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Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

**Usage in Children:** Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

**Usage in Pregnancy:** See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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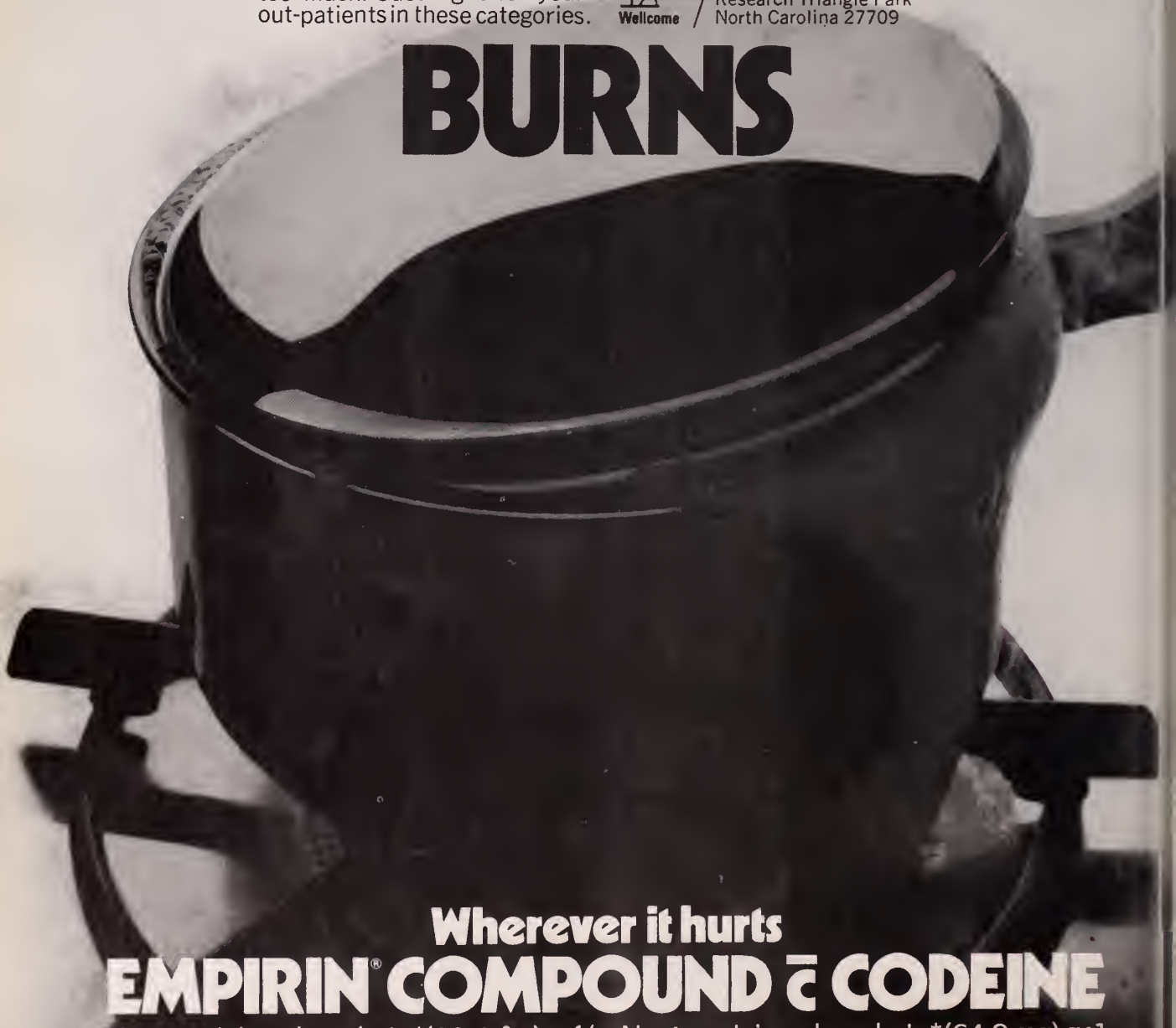
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*Under certain circumstances, reflux of alkaline duodenal juices into the stomach after various gastric operations can produce mucosal damage and cause distressing symptoms. The condition is suspected when the relatively typical symptom complex is elicited, and the diagnosis can be confirmed by fiberoptic esophagogastrosocopy. Surgical diversion of the duodenal contents away from the stomach may produce gratifying remission of symptoms, as illustrated in the case discussed.*

## Alkaline Reflux Gastritis as a Cause of Distress after Gastric Operations\*

**John H. Landor, M.D. and K. J. H. Meckeler, M.D./Piscataway**

Gastric operations done for peptic ulcer or carcinoma are known to be followed in some instances by various undesirable sequelae. Problems such as dumping, poor nutrition, diarrhea, afferent loop syndrome, anemias, and so on have been well documented and frequently noted for many years. Not so widely recognized, but achieving increasing attention, is the syndrome of alkaline reflux gastritis. This symptom complex has characteristic features which allow it to be differentiated readily from other forms of postoperative distress. Its recognition is particularly important because appropriate surgical management often brings about dramatic relief of symptoms, as illustrated by the following, recently-encountered case.

### Case Report

A 72-year-old male was seen in September 1973 complaining of constant upper abdominal pain. He gave a history of having had an operation for duodenal ulcer in 1941, but details of the operation were not known. During the ensuing years he had had intermittent bouts of upper abdominal pain and subsequently had developed substernal pain. He underwent exploratory laparotomy in another hospital for these symptoms on April 10, 1972, at which time a hiatal hernia and scarring of the duodenum were noted; he was treated by vagotomy, repair of the hiatal hernia, and distal gastrectomy with gastroduodenostomy. He was discharged from the hospital on the eighth postoperative day and shortly thereafter began to vomit. Vomiting became persistent and he was readmitted to the hospital on May 10, 1972.

X-rays revealed gastric outlet obstruction and, after an unsuccessful trial of non-operative management, he was returned to the operating room on May 16 where an antecolic gastrojejunostomy was performed. Recovery from this procedure was slow and was characterized by the onset of severe upper abdominal pain, anorexia, and persistent nausea and vomiting. After five weeks there was some improvement and the patient was able to retain most of his ingested food.

After his discharge from the hospital, he continued to have severe, burning, epigastric pain. He obtained partial relief with frequent large doses of antacids but was never completely free of pain; the pain was so severe and persistent that he was unable to sleep for more than a few hours at a time. Upon arising in the morning he experienced frequent bouts of nausea and vomiting as well as regurgitation of bitter-tasting material in the back of his throat. His weight remained approximately 20 lbs. less than his previous weight of 160 lbs.

Physical examination revealed a lean, tall individual who appeared depressed. There were no abnormal physical findings except for an upper midline abdominal surgical scar. Routine blood counts, urinalysis and SMA 12 showed no abnormalities. Upper gastrointestinal series showed a gastric pouch consisting of approximately one half the stomach; barium appeared to flow out of the stomach through the pyloric area into the duodenum as well as through a gastroenterostomy stoma into the jejunum. There was no evidence of a peptic ulcer. A one hour basal gastric secretory analysis yielded no acid and the peak response to histalog was only 4.2 mEq. HCl.

Fiberoptic esophagogastroduodenoscopy was carried out and revealed the following: A large amount of bright yellow bile coated the entire length of the esophagus. After a rinse with normal saline, the esophageal mucosa appeared dull, edematous and erythematous with loss of the normal vascular surface pattern. However, there was no friability. At the gastroesophageal junction free reflux of bile-stained fluid was noted and, on insertion of the scope into the gastric pouch, large amounts of inspissated mucoid yellow material were seen to coat most of the gastric surface. The gastric mucosa was markedly injected and congested, and early cobblestoning was noticed throughout the fundus. The gastrojejunostomy was easily identified, and a large amount of bilious material was seen refluxing into the gastric lumen. The gastric mucosa in the vicinity of the stoma was heavily inflamed and markedly friable. The instrument was advanced into the afferent as well as the efferent portions of the jejunum, but no abnormalities were detected within the jejunal lumen. The gastroduodenostomy was identified as a very small, narrow orifice surrounded by markedly inflamed, friable gastric mucosa. In spite of the narrow lumen of the gastroduodenostomy, a large amount of bile was seen to enter the stomach from this stoma as well. Thorough photographic documentation was obtained.

\*From the Departments of Surgery and Medicine, CMDNJ-Rutgers Medical School, Piscataway, New Jersey. Dr. Landor is Professor and Chief, Division of General Surgery, and Dr. Meckeler is Clinical Assistant Professor of Medicine (Gastroenterology).



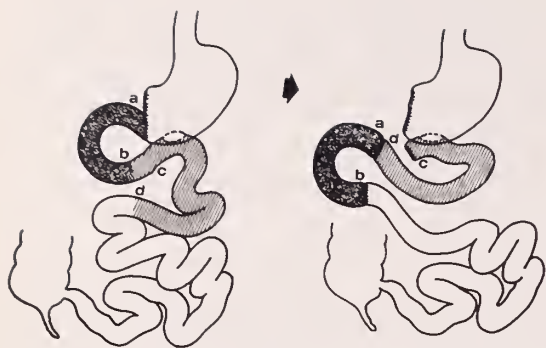


Figure 1—Diagrammatic Representation of the Interposition Operation as Performed in the Patient Described.

A diagnosis of reflux alkaline gastritis and esophagitis was made and the patient was taken to the operating room on September 20, 1973, where a Henley loop interposition was carried out as shown in figure 1. The jejunum was divided just proximal to the gastrojejunostomy and the distal end was closed; the gastroduodenal anastomosis was identified, divided, and the proximal opening in the stomach was closed; the jejunum was divided approximately 20 cm distal to the gastrojejunostomy and the proximal end was anastomosed to the proximal duodenum; the portion of the jejunum which had previously lain just proximal to the gastrojejunostomy was then anastomosed to the distal divided jejunum.

Recovery was uneventful and there was immediate disappearance of the previously constant pain. Repeat fiberoendoscopic examination of the esophagus and stomach four weeks postoperatively revealed a near-normal appearance of esophageal and gastric mucosa even in proximity to the gastroenteric stoma. No bilious material was seen in the esophagus or stomach throughout the endoscopic procedure. At latest follow-up, nine months later, the patient has gained eight pounds and states "I am hungry all the time. I eat more substantial meals. I have no distress, no pain, no nausea, no vomiting. I can eat many foods that I have not been able to eat for many years."

## Discussion

In 1956 Wells and Johnston<sup>1</sup> called attention to the problem of bilious vomiting and described the successful use of the Roux-en-Y anastomosis in its management. Since, then, numerous reports of this syndrome have appeared<sup>2-9</sup> and it is apparent that operations which divert the alkaline duodenal secretions away from the stomach may bring about relief of symptoms. Either the Roux-en-Y procedure or the isoperistaltic jejunal loop interposition, as described by Henley<sup>10, 11</sup> and used in our patient, appears to be useful in achieving this effect. Pain is the characteristic feature of the syndrome, and it may or may not be accompanied by regurgitation or vomiting of bile-stained fluid. The pain is often burning in character and may be described

as being similar to the pain caused by peptic ulcer disease; it is frequently more persistent and severe, and it is usually not relieved by the ingestion of food or antacids. Persistent failure to gain weight is a common feature, and there may be occult bleeding leading to iron deficiency anemia. The syndrome has been described after vagotomy, gastrectomy, pyloroplasty, gastroenterostomy or any combination thereof. It may begin almost immediately after such operations, but not infrequently its onset is delayed until many years later.

The precise circumstances which lead to the development of the painful gastritis in one individual, while allowing others to be spared, are poorly understood, but the injury to the mucosa results from a more or less constant exposure to alkaline duodenal juices. Lawson<sup>12</sup> has shown experimentally that exposure of gastric mucosa to duodenal contents can produce gastritis, and that the mucosal changes are more severe when a mixture of bile and pancreatic juice is diverted into the stomach than when either is used alone. It has also been documented that bile salts, in the presence of hydrogen ions, injure the gastric mucosa to the extent that they impair normal barrier function and allow increased back-diffusion of hydrogen ions through the mucosa.<sup>13-15</sup>

The majority of patients with alkaline reflux gastritis are found to be achlorhydric or hypochlorhydric, presumably because injury to the mucosa leads to atrophy of the mucosal epithelium and disappearance of parietal cells. Operations which divert duodenal secretions away from the gastrointestinal stoma must be done with caution, and only in patients with proved hypochlorhydria, for these operations are ulcerogenic if gastric secretory potential is intact.<sup>16</sup> Herrington<sup>17</sup> reports that, when Henley used his interposition operation as a method of reconstruction after primary gastrectomy for duodenal ulcer, at least 17 percent of his patients experienced recurrent ulcer disease. Vagotomy should always be carried out when Roux-en-Y or interposition operations are done in patients who have not previously had vagotomy, even if the gastric secretory level is very low, for Capper<sup>18</sup> has published evidence which indicates that the gastric mucosa recovers its ability to secrete HCl



when the gastric musosa is no longer bathed with duodenal juices.

## Summary

The syndrome of alkaline reflux gastritis is discussed and the successful surgical management of a patient by jejunal loop interposition is described.

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## American Blood Commission Formed

Forty-six organizations concerned with achieving a safe and adequate blood supply for the United States agreed today to form an American Blood Commission, a collaboration that was hailed by its president-elect, John J. Corson, as a "notable accomplishment in the organization of the country's health resources."

The Commission was established officially at the close of the two-day inaugural convention held in Washington, D.C., in which delegates met to develop an operating entity by which the goals of the National Blood Policy for the United States could be achieved.

The Commission will be concerned with leading the way in which non-governmental agencies will collaborate in achieving National Blood Policy

goals. It will strive to eliminate the duplication of blood donor recruitment; to improve the performance of blood banks throughout the country; to minimize waste and particularly to expand the voluntary donation of blood and thus to increase the safety of patients requiring blood.

Member organizations include: American Association of Blood Banks, AFL-CIO, American Heart Association, American Hospital Association, American Medical Association, American National Red Cross, American Society of Clinical Pathologists, Blue Cross Association, Chamber of Commerce of the United States, College of American Pathologists, Council of Community Blood Center, National Hemophilia Foundation, and the Pharmaceutical Manufacturers Association.

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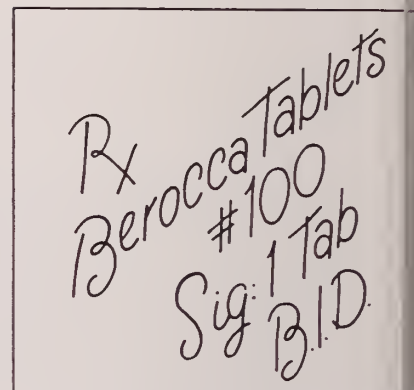


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*One hundred eight ambulatory patients from the medical and diabetic clinics at the Jersey City Medical Center showed widespread ignorance of their illnesses and treatment. Four of five could not name their disease. Only two in ten knew the names of their medications, or that dietary advice was a method of treatment. Cultural, ethnic, and linguistic differences between doctors and patients, and poor patient education, were the major factors in producing this situation.*

# Factors Affecting Patients' Comprehension of Illness and Treatment at an Urban Medical Center

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**Herbert Mark, M.D.,  
Melvin Hershkowitz, M.D.,  
Peter Mark, M.A.,  
and Reginald Coleman, B.S.  
Jersey City\***

During the summer of 1970, we interviewed out-patients at the Jersey City Medical Center to ascertain their comprehension of illness and treatment. This survey was part of a larger study to evaluate the delivery of health care in the out-patient facility of a large urban hospital. The findings were utilized in an attempt to improve communication with patients and out-patient care in general.

The understanding of disease and its treatment varies widely in patients, and is often determined by their ability to understand and communicate with their physician. The crucial factors in this communication are education, language, and culture, which are mainly socio-economic in origin.

Our investigation centered on the important socio-economic and cultural factors which may influence the delivery and utilization of out-patient care in a large urban medical center serving a community similar to the population of many other cities in the United States. Most patients were from lower economic classes and so-called "blue collar" communities, with large minority group representation, many of whom receive welfare assistance. The difficulties in-

volved in delivering health care to them in Jersey City may reflect conditions in other similar medical centers; thus, the findings of this survey may be useful to others.

## Study Procedure and Patients

The study consisted of patient interviews, scrutiny of hospital records, and analysis of collected data. Interviews were conducted during July and August, 1970, by two young men, a college graduate and a senior premedical student. The subjects were 108 patients chosen at random, 91 from the general medical clinics and 17 from the diabetic clinic. All interviews were conducted in the clinics, immediately before or after the patients saw their doctors. The same questions were asked of each patient in identical sequence.

The interviewers explained that they were not doctors, but some patients associated them with the permanent clinic staff, possibly because they wore white coats and used examining rooms for the interviews. A few people addressed them as "Doctor."<sup>1</sup> One interviewer was black, the other white. No difference in the reactions of black and white patients was found.

The patients were asked two groups of questions. One group elicited background infor-

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\*From the Department of Medicine, Jersey City Medical Center, Jersey City, where Dr. Hershkowitz is Associate Director of Medicine and Dr. Mark is Director of Medicine, and the CMDNJ-New Jersey Medical School, Newark, where Mr. Coleman is a third-year medical student. Mr. Mark is currently a graduate student at Yale University.

mation, including age, family ties, place of origin, and education. The second dealt with the subject's illness, course of treatment, and dietary, and other restrictions.

Following the interviews, hospital records were reviewed to verify information provided by the subjects. Inconsistencies between oral reports and written records were noted. Each interview was correlated with the patient's chart. Responses to questions were tabulated and analyzed, and conclusions drawn as reported below.

To assess familiarity with illness, two questions were asked: (1) "What is the name of your illness?", and (2) "What is actually wrong with you?"

After queries about the name and nature of their illness, patients were questioned about treatment, particularly medications and diet. They were then ranked in three categories by degree of familiarity with medications:

- (1) Those who recalled medication only by size, color, or shape of pill.
- (2) Those who knew (1) and also knew the functional purpose of their medication — "water-pill," or "heart-pill."
- (3) Those who knew (1) and (2) and also knew the technical names for their drugs.

Patients who identified one medication only by physical description or by name, and another medication by function, were accordingly classified in more than one category.

Patients were also asked whether their prescribed diets were part of their treatment, and misconceptions about diet were also sought. Patients who mentioned only medicines when asked to describe treatment were then asked, "What else do you have to be careful about?" Finally, they were questioned specifically about diet.

The sex and geographic origin of patients in this study are shown in Table I, and their age distribution in Table II. More women than men attended the clinic during this study. Only 10 percent of the interviewees were employed. It is assumed that a larger number of men were un-

able to attend the clinics because they were working during clinic hours. Men did not stay away from the clinics solely because of this time conflict, however. Although many urban poor come to clinics for trivial illness, many more do not seek medical assistance at all until serious illnesses occur in their older years. (Table II)

Only 20 patients were natives of Jersey City. Fourteen were born in Puerto Rico or a foreign country, and half were born in the southern states.

Information relating to the number of years of schooling was obtained from 101 subjects, and is summarized in Table III. Fewer than a quarter of the patients in the study group had any high school education. Twenty had four years or less of schooling and were considered functionally illiterate.

## Results

Our study showed that most people knew how long they had been under treatment; they dated treatment from the onset of a level of symptoms whose intensity they could not ignore, although they may well have been ill long before coming to the hospital.

Many individuals knew the name of their illness, but had no understanding of its intrinsic nature (Table IV). Twenty-nine patients could name their ailment, but could not say what was really

Table I

### *Sex and Geographic Distribution of Patients*

Total Patients:	108
Female	78
Male	30
Geographic Origin Known:	105
Southern U.S.	53
Jersey City	20
Northeast outside N.J.	18
Puerto Rico	8
Miscellaneous and Foreign Countries	6

Table II

### *Age Range of Patients*

Total Patients:	108
Over 60	33 (31%)
Over 40	81 (75%)



Table III

*Known Educational Experience Of Patients — Years of School*

Total Patients	101
College	0
Senior in High School (12 years)	8
Some High School (8-12 years)	16
Grammar School (4-8 years)	57
Grammar School (0-4 years)	20

Table IV

*Familiarity With Illness*

Total Patients	44
Knew neither name nor nature of illness	5
Knew illness only by name	29
Knew name and true nature of illness	10

wrong with them. One woman knew that she had "ulcers, gallbladder, and a chest hernia," but "couldn't understand the doctor's words."

We found two disorders widely under-reported: genito-urinary problems and alcoholism. Twenty-one female and four male patients had a history of genito-urinary ailments. Only three males reported this problem, but the results in female patients were different. Twenty-one women had histories of gynecological disorders; thirteen understated or failed to mention them, including such significant omissions as syphilis and hysterectomies.

Alcoholism was guarded with even greater secrecy. Patients would hint at it by speaking of it in the past tense — "I used to drink too much" — or through obliquity — "no more drinking" — when asked about dietary restrictions. Only two of twelve alcoholic patients mentioned their drinking problems.

Over half of the patients relied entirely upon physical description to recognize their medicine. Conversely, only 18 percent identified their medications by technical names (Table V).

Table V

*Knowledge of Medications*

Patients with prescriptions	96
Knew drug only by size, shape, color	53
Knew functional purpose of drug	25
Knew all above plus technical name of drug	18
Total:	96

Three factors correlated with the way patients remembered their medicines:

- (1) An awareness of the actual nature of the disease.
- (2) A long term rather than an acute illness.
- (3) A relatively higher level of formal education.

Subjects in category (3), who had an accurate awareness of disease, were usually suffering from long-term illness and had the most formal education. Individuals who knew precisely what was wrong with them also tended to know their medicines by name. Long-term or chronic illness was present in 13 of 18 patients who remembered medications by name. Many of these patients had diabetes or rheumatic heart disease. They had been taking insulin or penicillin for years, but some still did not know the names of these drugs.

The relationship between acquaintance with medication and amount of a patient's formal education was significant, and emphasized the difficulties involved in providing health care for a population that has had little schooling. Of eighteen patients who identified all of their prescriptions by name, educational background was known for 14. Each of these had at least an eighth grade education, and the average was tenth grade. Twelve other patients were partially in category (3), and eight had at least eight years of school.

Most patients failed to identify prescribed diets as part of their treatment (Table VI). The term "special diet" was considered by many patients to mean mainly or only "losing weight;" some patients complained that the doctor was doing nothing to help them. Eleven patients from the diabetes clinic were included among the fifty-

Table VI

*Patients Under Dietary Treatment*

Total with Diet Therapy	58
Denied diet as part of treatment	7
Admitted dietary restrictions only when asked	44
Volunteered that diet was part of treatment	7
Patients From Diabetic Clinic	11
Admitted restrictions only when asked	8
Volunteered dietary data	3

eight people on diets, but only three volunteered specific information about diet (Table VI).

## Discussion

The results of this study emphasize two related central problems:

- (1) Lack of communication between physicians and patients.
- (2) Lack of familiarity on the part of patients with their illness and treatment.

Several factors interfered with patient-doctor communication. Patient illiteracy was certainly a significant factor.

Other barriers became apparent during the course of the survey. Some people were uneasy at being examined and treated by foreign doctors. This complaint usually accompanied the communication problem — "I can never understand what he is saying." In only one or two isolated cases did racism appear to be the cause.<sup>2</sup> Some patients expressed concern about being seen by "students." This echoed the reaction noted by Haggerty,<sup>3</sup> in which patients at neighborhood health centers "do not want students or residents — they want 'real doctors'."

Two steps are necessary to help overcome these problems. First, physicians should explain carefully, in simple terms that make sense to patients, exactly what is wrong, and how and why specific treatment may help. Second, the role of diet, rest, and change of life style as forms of treatment should be explained so that patients can understand what foods and activities are being regulated and why. Dietitians and other trained staff members can help with this. This study did not attempt to explore the ability of new medical professional staff to communicate with patients.

The most severe communication problem in the Jersey City Medical Center outpatient clinics was created by a lack of patient education and cultural differences separating patients from physicians. The problem of communication was intensified because many physicians were foreign-born and trained, and spoke English with an accent incomprehensible to the patients.

When English was the second language of both physician and patient, a double language barrier existed. Situations arose in which both parties found their speech mutually unintelligible.

The great majority of patients did not know what was wrong with them. They might have followed their treatment regimens more closely had they understood their illnesses and the purposes of treatment. Patients with zero to eight years of education (nearly 75 percent of our subjects) were unable to understand their illnesses, medications or diets. Elementary explanations by doctors required patience and attention to absolute clarity. Physicians sometimes failed because repeated explanations on successive visits were necessary and time was short. Ignorance then led to fear, and people became reluctant to come to the hospital. One patient said she was not taking her medicine because she was afraid of it; two others refused surgery for the same reason. Many patients also projected a poor self-image and a sense of social stigmatization in relation to their affliction, particularly when alcoholism was a problem.

Medical care involving hospitals, doctors, and strange terminology is less frightening if patients comprehend what is happening. Patients interviewed expressed appreciation of those doctors who took the time and showed enough concern to tell them what was going on. They were no longer strangers to their own medical problems.

It takes time for physicians and patients to establish rapport. Patients seen by a different doctor on each visit are familiar to no one except by chart, so personalized medical attention becomes virtually impossible. People who have private physicians may receive continuing individual attention, but clinic patients do not always have this advantage. Within the limitations of other duties, doctors at outpatient clinics should have responsibility for ongoing care of specific patients over a period of time. This has become standard procedure in the general medical clinics at the Jersey City Medical Center.

The second proposed goal for outpatient clinics was to give patients a clear understanding of diet as part of treatment. Clinics should employ



dietitians fluent in Spanish and other appropriate languages, familiar with foods eaten in various ethnic subcommunities — Puerto Rican, Southern Black, Hindu, Moslem — from which patients originate. This was done at the Jersey City Medical Center in 1971. Other employees, possibly members of the community, might also be recruited for this job. The Denver system<sup>4, 5</sup> may be used; local non-professional people help patients plan food purchases and cook meals, arrange transportation to and from clinics, and serve as a link between the hospital and the community. This would enable the clinics to overcome the philosophic and cultural differences which separate the hospital from the community<sup>5</sup> and would constitute a form of community involvement in the delivery of health care. Bergner and Yerby<sup>6</sup> noted that the “underemployed” may well find the obstacles to reaching the clinics (financial, transportation, and so on) too high. Unless one is desperately ill, seeking medical care may have a low priority.

As Haggerty has written,<sup>3</sup> “The community of patients has the right to help design its own medical care . . . (so that) the person affected feels enough responsibility for, and pride in, his power to change his way of life.” The right of partial self-determination would thus replace the traditional totally paternalistic patterns of health care.

The nature of the patient population emphasized the problems involved in improving their awareness of illness and treatment. The great preponderance of women over men, large numbers of migrants from the “deep south,” a disproportionate representation of older people, high unemployment, and a generally very low level of formal education, all combined to make the job difficult. One quarter of the population was functionally illiterate. Few, if any, such patients can be expected to comprehend medical terminology used by doctors to explain illness. The dearth of patient education meant that dialogue between patient and doctor was exceedingly difficult; thus the basic principles of health and dietary hygiene were hard to transmit to the patient.

This study suggested that the following revisions in clinic procedures, organizations, and distribution of manpower might improve patient care:

(1) The tremendous under-representation of working male patients during conventional clinic hours could be changed by making clinics more accessible to them at other hours, including evenings. This would probably lessen the burden on the emergency room by absorbing ambulatory patients with non-urgent problems who might otherwise utilize the emergency room for their complaints.

(2) One-third of the women attending the clinic had children, many of pre-school age, who often endured a three hour wait when brought to the hospital with their parents. Hospital-based child day care centers would alleviate this problem. A more immediate solution for small children would be to provide a supervised playroom staffed by members of the community.<sup>7</sup>

(3) The disproportionate concentration of older clinic patients had implications relating to difficulty in mobility and transportation. Many old people can walk or take a bus, but most are retired on limited budgets. The introduction of reduced-fare public transportation for senior citizens has been helpful, but travel was still an added financial burden. Free transportation to hospitals by shuttle buses or private cars, by cooperation between hospitals and local governments in given communities, would be helpful.

(4) The cost of medications was also a strain for the poor. Many patients emphasized this problem and were unfamiliar with available federal assistance to defray prescription costs. Hospitals should counsel patients on how to get drugs, surgical devices, and other supplies at lowest possible costs. When prescribing and renewing medications, physicians should furnish sufficient amounts until the next clinic visit.

## Summary

Interviews with 108 patients attending the general medical and diabetic clinics at the Jersey City Medical Center demonstrated that 80 percent were generally unfamiliar with their diseases and had no understanding of treatment. Only 18 percent could identify their medications by name, while 12 percent knew that diet was an important part of treatment.

This ignorance was caused mainly by lack of formal education, leading to difficulties in communication between patients and doctors. Three-fourths of interviewed patients had a maximum of eight years of school and were unprepared for anything more than the most elementary understanding of diagnosis, medications and diet. Communication problems were intensified by the cultural chasm separating professionals (many foreign born and trained) from the patient population (mainly urban poor).

Doctors must explain illness and treatment at patient levels of education and experience. Trained bi-lingual or multi-lingual dietitians must correlate individual dietary restrictions



with ethnic food preferences. Nonprofessionals recruited from the community itself could link the hospital to the population it serves. The process of community involvement in local health care would thus begin.

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## State Medical Journals Head the List

State medical society journals have received another vote of confidence from their readers.

This year, ten of the state journals in the 36-journal group to which this journal has belonged were tested by a professional research group in Philadelphia and set a record of which we may be very proud. The testing mechanism, which is as objective as it is possible to be, consists of attaching a valid bank check for \$5 to advertising pages and then counting the number of checks which are cashed within ten weeks after mailing.

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During 1973 and 1974 our own state journal group and 16 of the most popular nationally distributed association-sponsored and commercial medical publications have been tested by this technique. The ten state medical journals had an average score of 35 percent. Usually returns on such tests are considered good if they are

between 20 and 25 percent. The scores for the other 16 national publications varied from 34.6 percent down to 15.4 percent. The state journal group was at the head of the list.

Measuring a publication's ad-page-exposure record by the \$5 check technique is the most reliable method yet devised. Every effort was made by the researcher to assure the highest standards of precision and accuracy on all journals. The entire process was scrupulously conducted so as to avoid bias. The results may be accepted as truly indicative of a publication's ability to attract and interest its readers, the physicians. All state journals may feel complimented and honored by such a study.

Corroborative evidence of the high readership of state journals is furnished by another type of reader interest study which was done by Medico Media Audit in June and July of 1973. State medical journals as a group headed the list of the ten publications which were studied. These two readership audits are considered the most objective and most reliable of all the advertising surveys. The fact that state journals are at the top of each list indicates a consistency and reliability of a medical journalism medium which is most commendable.

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*TB in Newark remains at one of the highest levels in the country. The medical students of the New Jersey Medical School and the Infectious Disease Department of Saint Michael's Medical Center have debated measures that may be employed to correct this problem. An old remedy has been the use of BCG. This discussion is outlined in these two papers. We hope to stimulate the health authorities toward developing a plan of action to eradicate TB in Newark and similar cities.*

## BCG — Not for Newark

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**Henry Tomlin, Charles Brancato,  
Vincent Pistone and Leon G.  
Smith, M.D. Newark\***

BCG vaccination for tuberculin prevention is a controversial topic. There are still varied opinions on this approach. We shall review and analyze the literature available on the subject. First, however, let's review the normal course of BCG vaccination, and then, in conclusion, relate this to the practical use of BCG in Newark.

BCG refers to bovine tubercle bacillus, isolated in 1902 by Nocard.<sup>1</sup> In 1908 Colmette and Guerin<sup>1</sup> attenuated the bacillus by repeated passages on a medium mixture of potato and bile. By 1920, attenuation was achieved to the point where, experimentally, there were no fatal cases of tuberculosis in cattle, monkeys, guinea pigs, or rabbits.<sup>1</sup> Since that time, BCG has been designed primarily for prophylactic human immunization.

In the normal course of immunization, infiltration develops slowly over a period of 14 days at the site of injection. The skin may later ulcerate. Maximum reaction appears in 3½ to 6 weeks after vaccination and should be approximately 11 mm. The ulceration heals in approximately 4 months. Clinical signs and symptoms such as regional lymph nodes which suppurate or become adherent to the skin should not complicate the picture, when the proper dosage of 0.37/ml intracutaneously in the deltoid region is used.

From 1920 to 1970, many investigators praised BCG for its prophylactic value. The Medical Research Council of Great Britain, Aronson (1948), Fremodt-Møller (1964), and others were convinced that the efficacy of BCG as a vaccine

had been proved. In 1967, many prominent authorities, such as four previous presidents of the National Tuberculosis Association, six previous presidents of the American Thoracic Society, seventeen professors and deans of American medical schools, and a health commissioner of New York City, recommended BCG. In the past 3 to 5 years, however, further investigations forced people to re-evaluate BCG as a vaccine.<sup>2</sup>

Many questions have developed which must be answered.

What exactly is meant by BCG effectiveness?

Has this term been a statistical slant?

Does BCG prevent post primary TB?

Does it even prevent primary TB?

What is the average age of actual TB cases, as opposed to those to whom BCG is directed?

What percentage of the active cases are reinfection, superinfection, or reactivation?

What percentage of the infections become active TB cases?

What are the other alternatives to BCG vaccination?

Do the side effects of BCG overshadow its effectiveness as a vaccine?

Is BCG at least effective in high risk areas?

How reliable is the population?

We will answer these questions and review the current literature concerning BCG.

In order to comprehend the literature on the subject, one must first understand the concept of effectiveness. Effectiveness is a statistical evaluation comparing the annual incidence per 100,000 tuberculin negative in a control group (non-vaccinated), versus a vaccinated group. For

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\*Doctor Smith is Director of Medicine and Chief of Infectious Diseases St. Michael's Medical Center, Newark. Messrs. Tomlin, Brancato, Pistone, Tischler, and Pundy are students at the New Jersey Medical School.

example, the North American Indian studies by Aronson<sup>3</sup> (1936) demonstrated 80 percent protection with BCG; the Chicago infant study by Rosenthal<sup>4</sup> (1937-1948) showed 75 percent; the British school children study by the Medical Research Council (1950-1952) revealed 78 percent; the South Indian rural population study by Fremodt-Møller<sup>4</sup> (1950-1955) produced 60 percent; the Puerto Rican children study by Palmer<sup>4</sup> and the United States Public Health Service yielded 31 percent; the Georgia-Alabama study by Comstock and Palmer (1950) found 14 percent; and the Georgia school children study (1947) protected nil percent. These studies show that any conclusion concerning effectiveness is premature *because reproducible results are not available*.

There are many vaccines available — Phipps, Tice, New York State, Danish, Madras, and Vole bacillus vaccine. All of these involve different doses of different strains. For example, with Tice vaccine, one study demonstrated 74 percent effectiveness in Chicago infants and only 14 percent in Georgia and Alabama. Tice laboratory makes a few substrains and it is not known if both studies used the same vaccine. Aronson<sup>3</sup> used Phipps vaccine in the North American Indian Study (80 percent); Palmer used New York State vaccine in the Puerto Rican (31 percent). The difference in percentages may be attributed to the difference in vaccines; but how many other variables are there — strength of vaccine, nutritional status of subjects, eligibility, climate, and so on. It is interesting to note that in some studies, one was eligible for study if induration of the tuberculin test was less than 5 mm while in others, less than 10 mm was required. Where are the controls then?

In addition to the multiple vaccine problem, statistics can often be misleading. For example, in the Puerto Rican study, there were 73 active tuberculosis cases in 27,338 controls and 93 cases of active T.B. in 50,634 vaccinees tested. By calculating and standardizing for a 100,000 case rate, they find 43.2/100,000 cases of active T.B. in control versus 29.8/100,000 in vaccinees. *Therefore, 13.4 additional people in 100,000 will contract tuberculosis without BCG.* Statistically, this means a 30.9% reduction in

tuberculosis cases among those who were vaccinated with BCG. "The *apparent* reduction in T.B. attributed to BCG vaccine . . . could have arisen from chance."<sup>5</sup> Therefore, how can anyone accept this as significant?

Further, in the Georgia-Alabama study, there were 28 active cases among 17,854 controls and 17 active cases of tuberculosis among 16,913 vaccinees. By standardizing for a 100,000 case rate, they found 22.4 cases/100,000 controls vs. 14.4 cases/100,000 vaccinees. This constitutes a difference of 8 people out of 100,000, which calculates out to a high percentage of 35.9 for a reduction rate. These statistical values of 30.9 and 35.9 percent reductions seem significant. In either case, however, we are really talking about a difference of 13 and 8 people respectively per 100,000. Is this significant?

In addition, Palmer, Shaw, and Comstock point out that in the Puerto Rican study, 14 of the controls and 15 of the vaccinees contracted tuberculosis, which became far advanced. Can this be considered significant? We can only conclude that the data thus far is not only circumstantial, but also statistically unjustifiable, since a small number of people is represented as a large percentage.

Yet, an extremely important question remains: what exactly does BCG prevent? "The answer to this question obviously depends on the study that you read."<sup>5</sup> Some investigators claim that BCG vaccination prevents the more serious forms of tuberculosis, such as miliary disease or meningitis, while others state that BCG is only effective against benign forms of tuberculosis. Now let's look at the facts and figures. A well-known study, for example, is the Puerto Rican Trial. Out of 93 vaccinees, 81 developed pulmonary tuberculosis; 15 developed far advanced tuberculosis; 19 developed moderately advanced; 23 minimal; and 24 developed primary disease. *If BCG prevents anything, it was not documented conclusively in this study.*

The advocates of BCG will now ask: What are the control values? In the controls of the Puerto Rican study, out of 73 controls, 65 developed pulmonary TB; 14 developed far advanced; 16 developed moderately advanced; 18 developed



minimal; and 17 developed primary disease.<sup>6</sup> Is the difference between the controls and the vaccinees even worth calculating? We would also like to point out that, based on 1967 data, the American Thoracic Society believes that a person vaccinated with BCG may still become naturally infected and develop tuberculosis at a later date.<sup>7</sup> Although many studies have been performed, no one has yet determined the length of effectiveness of BCG.

Some of the questions stated earlier in the paper may be answered together; namely, what is the average age of incidence? to whom is BCG directed? and what about reinfection? BCG advocates may claim that we are taking only those statistics which substantiate our views. Let us look, at their *best* study and examine the maximum possible effect (according to the advocates).

The British claim 80 percent protection, which may last as long as 15 years. According to the U.S. Public Health Service, the average age of the uninfected is now 25, and the average age of the infected is 55.<sup>9</sup> Who is it that the advocates of BCG want to vaccinate? The British Medical Council and Rosenthal at least agree that mass BCG vaccination is important for infants. Is this not a discrepancy in age?

*Who contracts tuberculosis?* Obviously, anyone can get it, but let's look at the current estimate of the Center for Disease Control based on 1971 data. Approximately "92 percent of the new cases of T.B. had developed in persons infected in the past."<sup>7</sup> Since there are 190 million uninfected people in America, the chance of developing a new infection is an incredibly low 0.03 percent/year, and this figure continues to decline. Also, "most new infections occur in household contacts of newly developed cases, rather than by casual contacts."<sup>7</sup> Palmer, Shaw, and Comstock<sup>5</sup> also make an interesting point concerning the question — who contracts tuberculosis?

In the Public Health Service's Puerto Rican Trial, the annual incidence of tuberculosis reported among tuberculin reactors was 163 per 100,000, and among tuberculin non-reactors 43 per 100,000.<sup>5</sup> Also, in the Muscogee-Russell

Trial,<sup>5</sup> the annual incidence of disease reported among tuberculin reactors was 78/100,000 and among non-reactors 43 per 100,000. In the former case, there is a three-fold increase of disease among reactors; in the latter, there is a two-fold increase of disease among reactors. Doesn't BCG vaccination cause a positive tuberculin test? Is it not possible that BCG vaccination may cause a greater incidence of tuberculosis in about 20 years? This has never been conclusively studied. Ian Sutherland of England points out, however, that the "relationship between the efficacy of BCG and the extent of superinfection needs to be clarified and quantified much more precisely than at present."<sup>8</sup>

Another important consideration is side effects. The one side effect commonly seen is suppuration lymphadenitis, which is as high as 25 percent in newborns.<sup>10</sup> Other side effects seen are: scrofuloderma, T.B. varicoses, non-fatal generalization, fatal T.B., osteomyelitis, and lupus vulgaris.<sup>10</sup>

One last point that we would like to make concerns the largest BCG study made in Scandinavia involving 4 million people.<sup>11</sup> The rate of new infections did decrease, but *not due to BCG*.<sup>11</sup> In this study the decrease of tuberculosis was due to:

- (1) a general increase in natural resistance of the population because of biological and social-hygiene reasons, such as decreased crowding and better nutrition
- (2) a shift in the age of primary infection from childhood to adulthood because of decreased sources of infections
- (3) earlier diagnosis
- (4) more effective therapy, both chemical and surgical

In conclusion, is BCG practical for Newark? Is this *really* the question? or, rather, — Is BCG practical for high-risk areas? We conclude that BCG is not practically useful for either the susceptible individual or the precarious groups. Our conclusion is based on the evaluation of effectiveness, statistics, age of incidence and reinfection. It is based not only on one study, but on many. It involves not only studies *against* BCG, but also studies *for* BCG. The question remains: — what is an alternative? The American Lung Association states that "providing preventive treatment with Isoniazid (INH) to infected persons at a high risk of developing the disease is a more precise means



of blocking transmission in the U.S. today.”<sup>7</sup> We also feel that negative reactors in high risk areas should be followed with tuberculin testing and then treated with INH, should they become positive.

Advocates of BCG have shown that people in high risk areas are not faithful to their drug regimen. As we have demonstrated since the value of BCG is at best doubtful, we feel that better INH programs should be investigated and established. Instead of people going to the public health service, maybe the public health service should go to the people.

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## BCG — for Newark

**Charles Tischler,  
Andrew Pundy, and  
Leon G. Smith, M.D./Newark\***

From July thru September 1973, there were 201 patients hospitalized for TB in Newark, New Jersey.<sup>1</sup> During that same period, there were also 1,487 non-hospitalized patients suffering from the same disease, bringing the total to 1688. This figure represents more than one-fourth of the entire population of tubercular patients in the State of New Jersey. It, therefore, places Newark in the unenviable position of having one of the highest tuberculosis rates of any city in the United States.<sup>1</sup>

What can be done to rectify this situation? There are several possibilities: one is the mass BCG vaccination of Newark's children. BCG was introduced in 1923. Several studies have proved the efficacy of BCG vaccine in preventing infection with virulent tubercle bacilli.<sup>2</sup>

The first major study of BCG efficacy was undertaken by Aronson<sup>3</sup> in 1948. He studied protective vaccination with BCG with 3,000 American Indians residing in Alaska and in the northwestern United States. Separate experimental groups of newborns and children/adolescents were compared to control groups. The groups were followed for nine to eleven years; (newborns six to eight years) post-

\*See footnote, p. 501

vaccination, with tuberculin test and x-ray screening at yearly intervals. The results showed 22 cases of tuberculosis appearing in the vaccinated group as opposed to 120 cases in the control groups. In addition, in the vaccinated group there were 6 deaths attributable to tuberculosis (0.4/1,000), as compared to 53 deaths in the control group (3.5/1000). The difference between both infection and death rates was statistically significant.

In 1964 Frimodt-Møller<sup>4</sup> reported on a study undertaken in southern India. It consisted of 11,577 non-reactors (defined as less than 4 mm induration with 5 tuberculin units and/or less than 5 mm induration with 10 TU) divided into experimental (vaccinated with BCG) and control groups and followed by tuberculin tests and x-rays. The results demonstrated the development of tuberculosis in 6 vaccinated subjects (1.18/1,000) and in 24 control subjects (4.13/1,000) or in the BCG vaccinated groups a reduction of 71.4 percent in incidence of tuberculosis.

The two preceding studies demonstrated BCG efficacy in underdeveloped populations. In 1963, the Tuberculosis Vaccines Clinical Trials Committee of the Medical Research Council (MRC) of Great Britain, reported on a 10-year study in urban Great Britain (North London, Manchester, Birmingham).<sup>5</sup> The population setting is more closely representative of Newark. In this study, the 54,289 participants were initially free from active tuberculosis (negative tuberculin reaction to 100 TU). They were divided into experimental (BCG vaccination) and control groups and were followed annually by mail inquiries, home visits, tuberculin tests, and chest x-rays. The final results showed an incidence of tuberculosis of 0.4/1,000 in the experimental group and 1.91/1,000 in the control group, or a 79.0 percent reduction in the vaccinated group.

There are two studies which contradict the preceding figures.<sup>6</sup> One is a Public Health Service study, which reported a reduction in tuberculosis incidence in a BCG vaccinated group vs. a control group in Puerto Rico of 30 to 35 percent over a seven year period.<sup>7</sup> The second is another Public Health Service study conducted by the same group. The latter reported a reduction of 14 percent over fourteen years in Georgia

and Alabama.<sup>8</sup> However, the director of these studies subsequently explained the difference in results was probably due to the methods employed in selecting subjects rather than to a decreased efficacy of BCG.<sup>9</sup> The British group<sup>5</sup> used only subjects who did not react to 100 TU. The Georgia/Alabama and Puerto Rican studies required only negative tuberculin reactions to 5 TU. The majority of these subjects had a positive reaction to 100 TU. This probably reflected previous infection with atypical tubercle bacilli. Such an infection will give some degree of immunity against virulent tubercle bacilli, although it is not as effective an immunity as that afforded by BCG. Thus, prior to the studies, many subjects in the PHS control groups already had had a degree of immunity against tuberculosis.<sup>6</sup>

In addition to proven efficacy, BCG vaccination is characterized by a remarkably low incidence of untoward reactions. Horowitz<sup>10</sup> stated that clinical manifestations of systemic infection caused by hematogenous spread of BCG are extremely rare. Oatway *et al.*,<sup>11</sup> state that the incidence of local and general reactions is close to zero. During this study Aronson<sup>3</sup> noted that in over 1,500 vaccinated individuals there were no untoward local or general reactions and no incidence of ulceration of regional lymph nodes. A 1969 New England Journal of Medicine editorial<sup>2</sup> stated that BCG vaccination presents no hazard; only polio vaccine is in the same league with regard to safety.

Advantages of BCG vaccine include effectiveness and low cost.<sup>6</sup> One vaccination may continue to be effective for more than ten years.<sup>5</sup> In addition to protective action against primary tuberculosis, BCG is also effective against chronic pulmonary progressive tuberculosis<sup>12,13</sup> with an overall effectiveness of 80.0 percent.<sup>5,20</sup>

While originally there were many problems with BCG (contaminated cultures, difficulty in maintaining the potency of live, liquid vaccine in the field and the variability of vaccine at different times and/or in different places), these problems have been minimized in recent years by the availability of freeze-dried preparations.<sup>6</sup> These preparations are stable, available in standard

form, easy to ship, and easy to administer by relatively untrained personnel.<sup>11</sup>

While the number of new cases of tuberculosis is decreasing nationally each year, it is alarming to note that in urban slum areas (which contribute the majority of new cases), the annual rates are actually rising.<sup>6</sup> BCG is an especially attractive alternative for relatively specialized populations such as these.

In 1963, the United States Task Force on Tuberculosis recommended that the problem of eliminating tuberculosis be approached by locating new cases via mass screening, involving tuberculin tests and chest x-rays, with subsequent chemotherapy for positive reacting individuals.<sup>19</sup> These methods will be effective in many areas, but in urban slum areas with people of low socio-economic level, the effectiveness of these methods is decreased.<sup>6</sup>

Isoniazid therapy in these groups is impractical due to the cost and strict regimen which must be followed. Many of the low socio-economic level simply do not take medication faithfully, especially over long periods of time (i.e., six months to one year).<sup>6</sup> One example of this problem is a World Health Organization study<sup>14</sup> on isoniazid prophylaxis in India, which was finally abandoned due to poor patient cooperation.

Another study in Washington, D.C.<sup>15</sup> showed that only 50 percent of positive reactors (i.e., eligible subjects) could be located for follow-up after the initial tuberculosis screening. Of the 50 percent contacted, only 45 percent (less than 25 percent of all positive reactors) took more than half of their pills. The conclusion from this study is that isoniazid chemotherapy is unsuitable for high-risk groups in urban areas.

In still another study of a low socio-economic area<sup>16</sup> 25 infants were followed after birth to a member of a tuberculous household. All were referred to a follow-up clinic. Sixteen were lost to follow-up, all but one before one year of age. Of the remaining ten patients, only two completed the entire twelve months of isoniazid therapy.

A population with a high incidence of tuber-

culosis (especially one such as Newark in which 88 percent of the patients are not hospitalized)<sup>1</sup> will obviously have many infants born to tubercular mothers and/or residing in tubercular households. These infants form another high-risk group, which can be greatly benefited by BCG vaccination.

In 1969, a study by Kendig<sup>17</sup> showed that out of 105 infants born to tuberculosis-stricken mothers followed for eleven years, thirty of whom received BCG vaccinations and seventy-five of whom acted as controls, there were no deaths and no cases of tuberculosis in the vaccinated group. In the control group, there were thirty-eight cases of tuberculosis with six deaths, three of which were attributable to tuberculosis. The conclusion here is that BCG vaccination is the treatment of choice in the case of tubercular mother due to the known inadequacies of an imperfectly followed regimen of isolation, surveillance and/or isoniazid therapy.

An earlier study by Rosenthal<sup>18</sup> of infants born into a household in which there resided a tuberculous adult showed that those infants who received BCG had a more favorable prognosis than those who did not receive vaccination. Of the 231 vaccinated infants, there were 3 cases of tuberculosis, no deaths, and no dissemination. In 220 non-vaccinated infants, there were 11 cases of tuberculosis with 4 deaths due to tuberculosis.

In the past, several objections had been raised as to the general use of BCG vaccine. Several practical problems existed, including contamination of cultures, difficulty in maintaining the potency of live, liquid vaccines produced in different places or at the same site at different times. As previously noted, freeze-dried preparations which satisfactorily solve these difficulties have recently been made available.<sup>6</sup>

A second commonly held belief is that the rare case of tuberculosis that develops in a vaccinated individual will go undiagnosed due to the invalidity of the tuberculin test following vaccination. This objection is fallacious for three reasons. First, the tuberculin test reaction is markedly decreased within one year, although the protective power of the vaccination remains.<sup>2</sup>



Secondly, there are quantitative differences in the tuberculin reaction to active tubercle bacilli disease and vaccination. Patients infected with active disease will react to 1 TU, while patients who have received BCG vaccination will seldom respond to less than 5 TU.<sup>6,11</sup>

In addition, vaccinated patients show a much smaller area of induration following a tuberculin test than do patients with virulent tubercle bacilli infections.<sup>6</sup> It must also be noted that in high-risk areas there is approximately a 25 percent incidence of positive reactors, thus rendering the tuberculin test of little use.<sup>6</sup>

For those who support isoniazid prophylaxis chemotherapy in preference to BCG vaccination, it must be noted that BCG vaccination does not preclude the use of isoniazid prophylaxis. Isoniazid (and other chemotherapeutic agents) is an effective therapeutic agent, and has a place, especially in areas of low tuberculosis incidence. It is not a preventative, however, and in high-risk groups, prevention is the main concern.<sup>6</sup>

We, therefore, believe that the time has come for BCG in Newark. A 1969 New England Journal of Medicine editorial<sup>2</sup> stated that of 40,000 new cases of tuberculosis reported in 1968, at least 10,000 were cases that developed from infections which were recent enough to have been avoided by the use of BCG. The editorial concludes that BCG vaccine is the best anti-tuberculosis vaccine available. It has a definite place in many areas of the world, including high-risk areas in developed countries. It is the most effective and feasible preventative tuberculosis agent for tuberculosis control.

A publication co-authored by twenty-one eminent tuberculosis and public health authorities (including four previous presidents of the American Thoracic Society, seventeen professors and deans of American medical schools, and a health commissioner of New York City<sup>11</sup> states that BCG use is recommended; BCG should be more widely used than at present when indicated; and that contrary reports should be reconsidered. They specifically recommend that BCG vaccination programs be continued or instituted (as the case may be) in high-risk areas such as urban slums, medical and nursing

students, hospital workers, laboratory workers, military personnel, and those in contact with tubercular individuals.

Finally, a statement from the Arlie House Conference (sponsored by the National Tuberculosis Association, the American Thoracic Society and the National Institutes of Health in 1966) reads as follows:

"... Wise men should realize that ... they should use the available weapons against tuberculosis ... This ... most certainly includes the wide employment of BCG, which, with up to 87% protection, is not such a bad weapon after all ..."<sup>11</sup>

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306 High Street

## Oral Surgery

Frank J. Verdi, D.D.S.\*

What are the salient clinical findings in children with mandibular fractures?

1. Malocclusion inability to bring maxillary and mandibular teeth into their proper centric bite.

2. Facial deformity if gross displacement of fractured segments present.

3. Pain and crepitus over fracture site upon palpation swelling and ecchymosis at fracture site.

4. Trismus difficulty in various masticatory excursions. Radiography will confirm and delineate clinical findings.

Facial bone fractures in children under 12 years of age comprise approximately 5 to 6 percent as confirmed in surveys by Rowe and Kiley,<sup>1</sup> Donaldson,<sup>2</sup> Hogan and Huelke.<sup>3</sup> The low incidence of facial fractures in children is in part due to the large cranium protecting small jaws without well pneumatized air sinuses, also the plastic resilient quality of the basal bone permits it to sustain a considerable impact without fracture.

The etiologic factors include falls, automobile accidents, playground accidents, sporting injuries, and injuries from animals. I am especially suspicious of a child with a submental laceration following a traumatic blow under the chin. The force of this nature is transmitted up the mandible to the condylar areas where fractures occur at the condylar neck. The condylar areas are the main growth centers of the mandible, and serious potential complications can result from

untreated condylar fractures in children. This can result in facial asymmetry, malocclusions, and possible ankylosis.<sup>4</sup>

Treatment of mandibular fractures in children consists of reduction, stabilization, and immobilization. Most of the time, simple closed reduction measures are adequate. Complicated forms of reduction should be avoided when possible because children may experiment or dislodge fixation mechanics. Healing time is approximately 3 to 4 weeks, a bit faster than for adults. Fractures which may lead to possible secondary complications as growth defects, deficits, or deformity must be followed until adolescence or normal adult growth has been attained.

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\*From "The Cooper Review" published by The Department of Medical Education, The Cooper Hospital, Camden, New Jersey, where Dr. Verdi is Chief Attending, Department of Oral Surgery.



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*Hospital tumor registries have been in operation for decades. The main reasons for maintenance of a tumor registry are to help evaluate end results with various treatment modalities, to aid the physician in the follow-up of his patients, and to utilize the data for teaching and research purposes.*

## Central Tumor Registry — An Overview

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**Inderjit S. Thind, M.D., and  
Donald B. Louria, M.D./Newark\***

Great sums of money and physician time are being spent for the care of cancer patients. New modalities of treatment, some based on sound medical reasoning, others on fads, are being practiced daily on such patients. It is imperative to know whether this time and money is being utilized effectively. Cancer is more susceptible to such analysis than other chronic diseases because of (1) a reasonably well-defined time of onset, (2) definitive diagnostic criteria, and (3) the generally short period of survival in the absence of effective specific therapy. Thus, tumor registry is a yardstick that tells us what is successful and what is failing in cancer therapy.

Tabulations from the tumor registries can demonstrate not only the relative effectiveness of various treatment modalities, but also the quality of survival after various therapeutic regimens; the latter is of major significance. Does the treatment prolong a miserable life? Are these patients able to go back to work? These and other questions can readily be answered by a thoroughly organized tumor registry.

The tumor registry can also provide basic data on cancer incidence, prevalence, and mortality and provide insights into the etiologies and risk factors for various types of cancers.

### Hospital Cancer Care Program

A hospital cancer care program usually consists of two parts:

(a) Cancer Clinical Program (also referred to as Tumor Conference Board, Cancer Conference, Tumor Clinic or Cancer Clinic). Here the patient seeks and utilizes the diagnostic resources and receives therapeutic care and long term follow-up. Patient-physician cooperation

and understanding form the basis of a successful tumor clinic.

(b) Hospital Tumor Registry which depends on the tumor clinic for its data. It is a secondary instrument that is useful for record keeping and statistical analysis.

The overall impact of the cancer care program is to make it possible for the professional staff to learn more about the biological and clinical effects of different kinds of cancer and the effectiveness of treatment.

### Central Tumor Registry

A central tumor registry, if properly organized, can and should exert a positive influence on the organization and structure of the hospital-based cancer care programs. Certain trends in cancer rates and evaluation of therapy can be determined only from the central tumor registry since hospital tumor registries do not have enough cases to draw such conclusions. The central registry obtains data from the tumor clinics and the local tumor registries. The data should be collected accurately and uniformly from all sources. To do so, personnel from the central tumor registry should visit each tumor program in each hospital at least once or twice a year.

### How to Start a Tumor Registry

Interest in the cancer patient is a prerequisite. A good tumor registry records the site and type of cancer, the type and effect of therapy and, hopefully, an evaluation of the medical care end results and the quality of survival.

It is a problem to define what should go into the final material of the tumor registry. The data to

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\*Dr. Louria is Chairman and Professor of Preventive Medicine and Community Health, and Dr. Thind is Professor in the same department, and also Director of Epidemiology, New Jersey Medical School, CMDNJ.

be registered can be basically subdivided into two areas, the core items and the optional items. The former are minimum requirements whereas the latter provide more complete information which may be obtained on each patient. Depending upon the facilities and the personnel available, optional items may or may not be included. The core items as required by the American Cancer Society are given in the figure below.

Data can be collected from a variety of sources. Small hospitals use accession books, but this is usually not practiced in large institutions. It is mandatory to utilize the following sources in order to collect adequate core data.

(1) Pathology reports

(2) Cytology reports focusing both on those labeled suspicious and those considered a definite diagnosis of cancer

(3) Bone-marrow aspiration and biopsy reports looking for cases of leukemia or metastatic tumor cells

(4) Discharge diagnoses in order to identify those cases of cancer which might have been otherwise missed.

Any hospital, especially a large hospital, may have difficulty in being current and accurate in reporting. However, this can be minimized by periodic spot checks of the procedures being used in order to correct any difficulties involved in case finding.

Name		Street		City		State		Reg. No.:	
Address									
Name of Spouse (if married woman)				Date of Admission:		Date of Discharge:		Hospital:	
Age or Birth date		Sex	Race	Marital Status	Private Non-Private	<input type="checkbox"/> Out Patient <input type="checkbox"/> In-Patient	<input type="checkbox"/>	Hospital No.:	
DIAGNOSIS	FINAL DIAGNOSIS (Specify primary site of cancer)						Other primary sites. Yes <input type="checkbox"/> No <input type="checkbox"/> If "yes", specify		
	Basis of Diagnosis: Autopsy <input type="checkbox"/> Histology <input type="checkbox"/> X-ray <input type="checkbox"/> Clinical Only <input type="checkbox"/> Other (Specify) <input type="checkbox"/>								
	Histological Diagnosis: (Pathology Report):						Grade:		
	Date of Diagnosis						Exfoliative Cytology		
	State of Disease: Localized <input type="checkbox"/> Regional Involvement <input type="checkbox"/> Remote Metastasis <input type="checkbox"/> Not Applicable <input type="checkbox"/> Unspec <input type="checkbox"/> In Situ <input type="checkbox"/>								
HISTORY	Was case positively diagnosed as cancer before this admission? No <input type="checkbox"/> Yes <input type="checkbox"/> If Yes, Date:								
	Has patient been previously treated for this cancer? No <input type="checkbox"/> Yes <input type="checkbox"/> Recurrence <input type="checkbox"/> No evidence of disease <input type="checkbox"/> If "yes", specify date, type of treatment, and doctor or hospital Date: Treatment:								
	Type: Surgery <input type="checkbox"/> Radiation <input type="checkbox"/> Chemotherapy <input type="checkbox"/> Hormones <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/> Patient Refuses Treatment <input type="checkbox"/> Other (Specify) <input type="checkbox"/> Purposes: Curative <input type="checkbox"/> Palliative <input type="checkbox"/> Diagnosis Only <input type="checkbox"/> Unknown <input type="checkbox"/> Date and Type of Treatment:								
CONDITION	Condition at Discharge: Alive <input type="checkbox"/> Dead <input type="checkbox"/>								
	If Dead, Date of Death:			Cause of Death:			Autopsy: Yes <input type="checkbox"/> No <input type="checkbox"/> Not Stated <input type="checkbox"/>		
	If Alive: No Clinical Evidence of Cancer <input type="checkbox"/> Not free of Cancer <input type="checkbox"/> Unknown <input type="checkbox"/>								
FOLLOW-UP	Name and address of hospital or physician responsible for follow-up:								
	Name of person submitting this report:				Date:				

CANCER REGISTRY  
ABSTRACT FORM



Identical forms for abstracting and coding the information should be used by all hospitals and clinics so that comparable data for tabulation, reporting, and analyses are available on all patients.

The use of the International Classification of Disease WHO Revision #8,<sup>1</sup> is considered the best for coding malignant neoplasms according to site. The histologic diagnoses of tumors is best coded according to the Tumor Nomenclature Guide,<sup>2</sup> published in 1968 by the American Cancer Society. The International Classification of Staging or "TNM" Classification<sup>3</sup> is preferred and is available for most cancer sites. However, if the International Classification of Staging is believed to be too cumbersome, or difficult, then the classification using localized, regional, or disseminated disease is acceptable, provided these terms are well defined and used uniformly in all hospitals.

There are rigid rules as to what should be included in a tumor registry. Changes in data collection are acceptable so long as the dates and explanation for the changes are well defined. Corrections need to be made when changes are introduced so that comparable data can be generated before and after the change has been introduced.

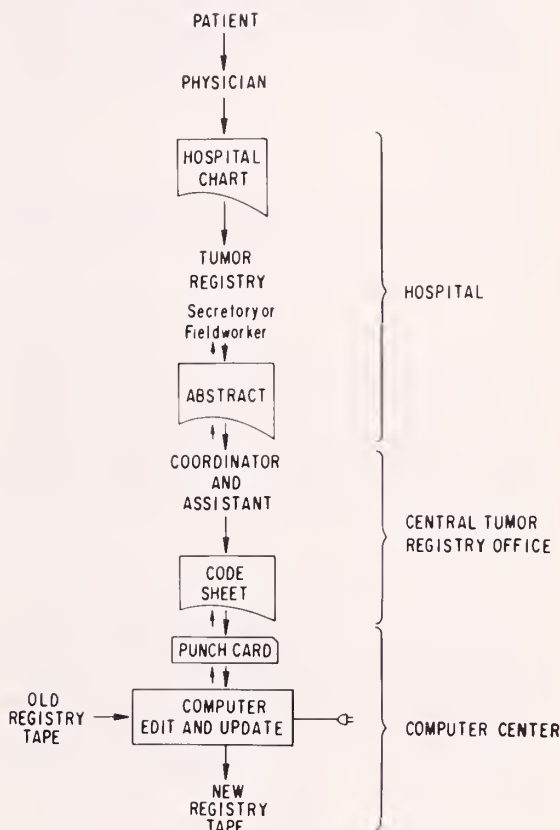
Smart<sup>4</sup> has developed the most complete computerized tumor registry, which is patterned after the programs developed at various medical schools, including the University of California.<sup>5</sup> The diagram illustrates the method used.

### Role of Central Tumor Registry in Follow-up

The major problems affecting the registry concern maintenance of the follow-up schedules and the prompt feed-back of information to the physicians. To achieve 100 percent follow-up of surviving cancer patients, concentrated efforts involving the patient, the physician, the consultants, the relatives and friends are required. The central registry aids the hospitals in obtaining a high degree of cancer patient follow-up by:

1. Printing out monthly or quarterly reports of all registered

### INPUT DIAGRAM TO THE TUMOR REGISTRY



patients as a reminder as to when each patient is due for his follow-up.

2. Providing a liaison with all participating hospitals and physicians, so that care and/or admission of a so-called "lost patient" at another institute can be identified.
3. Providing liaison with participating hospitals and the state and county health departments in relation to death certificate information.

More often than not, the patient lost to follow-up is under adequate therapy at another place, since patients do seek care and do get registered at more than one hospital. The liaison work of the central registry aides tumor registries in identifying such "lost patients." This coordination among the various area hospitals and central tumor registry results in a high degree of patient follow-up compliance and thus ultimately increases the accuracy and significance of the data collected.

Patients lost to follow-up may be identified by the use of vital statistics, post offices, social service agencies, phone directories, town clerks,

and so on. Occasionally, a person-to-person phone call may be helpful. There are other methods — registered and special delivery mail and telegrams that can be utilized for follow-up of patients. Telegrams may produce anxiety and friction and ought to be avoided, if possible.

### Reporting

The central tumor registry is an excellent source for compilation and analyses of data which can be used for an interesting article or report or in teaching programs.

In the teaching hospitals affiliated with medical schools, the students should be required to know the local cancer statistics in the discussion of individual cancer cases. A discussion of the annual report of a particular hospital with the house staff and other practicing physicians is also desirable.

The central tumor registry should be so organized that every physician and each hospital participating in the program should receive a print-out of the results on the treatment of their patients. The use of such data is necessary for self-evaluation by the physicians and the hospital staff.

The statistical analysis of the information should include demographic characteristics of the cancer patients, the site and stage of cancer, the basis of diagnosis (clinical, histological, cytological, and others), the type of treatment, and the survival information. With the passage of time, the significance of survival information from the central tumor registry becomes increasingly valuable for studies of both clinical and epidemiological aspects of cancer. Complete analysis of long-term data may provide the basis for assessing the quality of cancer care achieved at various hospitals.

It should be emphasized that the trouble with most registries is not the registry concept, but rather defects in data collection, organization, or utilization of the information. Tumor registries formed solely for compliance with the certifying committees, such as the American College of Surgeons, are futile efforts; they will not survive because of lack of enthusiasm for the registry and lack of knowledge of what a tumor registry can do.

On the other hand, an enthusiastically maintained registry can provide a wealth of information as previously discussed. It also can be enormously helpful in four areas:

First, it can alert the medical community to clusters of a given neoplasm. In the case of common cancers, this will help in investigation of risk factors, possible transmissible factors, and so on. In the case of rare tumors, geographic or temporal clustering can be of great help in determining etiology (or risk factors) and in permitting early intervention (as for example in industry-related tumors).

Second, registry data can be used in the teaching of medical students and staff.

Third, the registry can provide a great deal of information about changing trends of both incidence and mortality and can further subdivide tumor incidences by age, ethnicity, sex, and so on. Such information can be utilized by the physician in many ways, e.g., the profound increase in lung cancer among women may be used by every practicing physician in attempting to dissuade women from smoking. Similarly, data showing that breast cancer is the leading cause of cancer deaths among women may be used to persuade female patients to practice self-examination. The fact that invasive uterine cancer mortality has been dramatically reduced by early intervention can be invaluable in encouraging regular pelvic examination. Additionally, this information can be made more relevant and compelling for the individual patient when she realizes that the data are gathered locally.

Finally, an effective registry is essential for the cancer epidemiologist. Only by constant analysis of continuing data can we achieve an understanding of risk factors and etiologies that hopefully will permit a reduction in the enormous human and fiscal toll exacted by cancer in the United States.

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100 Bergen Street

### The Urologic Physician's Assistant\*

A Urologic Physician's Assistant is a skilled person, qualified by academic and clinical training, to provide patient services under the supervision and responsibility of a urologist. The urologic physician's assistant may be involved with the patients of a urologist in any medical setting for which that urologist is responsible.

The function of the urologic physician's assistant is to perform diagnostic and therapeutic services, under the responsibility and supervision of the urologist, to allow the urologist more effectively to extend his services.

The urologist continues to become involved in an increasing variety of activities. Some of these can be performed only by the urologist. The urologic physician's assistant cannot supplant the physician in the sphere of decision-making required to establish a diagnosis and plan of therapy, but can assist in gathering the information necessary for decisions and the implementation of a therapeutic plan.

The tasks performed by the urologic physician's assistant will be directed toward transmission and execution of the urologist's orders, performance of patient care tasks, and performance of diagnostic and therapeutic procedures delegated by the urologist. The ultimate role of the urologic physician's assistant cannot be rigidly defined because of the variation in practice requirements due to geographic, economic, and sociologic factors. The high degree of responsibility a urologic physician's assistant may assume requires that, at the conclusion of his formal education, he possess the knowledge, skills, and abilities necessary to provide delegated services to patients and appropriate

assistance to a urologist in a variety of environments, such as the urologist's office, hospitals, urologic clinic, cystoscopic suite, operating room, hospital urologic floor, dialysis unit, research laboratory, or teaching service.

The duties of the urologic physician's assistant would include:

1. Assistance in the organization and management of cystoscopic facility. Duties would include care, sterilization, and maintenance of urologic instruments and equipment, preparation of patients and assistance in all diagnostic and surgical procedures.

2. The functions of a surgical technician for urologic operations.

3. Assistance in the organization and management of a hospital outpatient, urologic clinic.

4. Participation on the hospital urology floor, in urologic care including the maintenance and replacement of urinary drainage tubes and their collection devices, collection of urine specimens, renal function studies, wound care, and the preparation of patients for diagnostic studies and surgical intervention.

5. Assistance in urologic office practice, including history taking, performance of routine laboratory procedures and diagnostic procedures, preparation of patients for therapeutic and diagnostic procedures, care of instruments, and proper maintenance of the office physical facilities.

6. Performance in special fields of interest and ability, such as dialysis, research, teaching or stomal care.

No one individual could participate in all the categories of work outlined. Instead, he will most likely limit himself to some one or two facets of this broad field in which he has special interest.

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\*Prepared by American Medical Association's Council on Medical Education in collaboration with the American Urological Association.





# Bioequivalence

Form with fields for Name, Address, and Date, and a handwritten number 18.

NAME	ADDRESS	DATE

18

# the weight of scientific opinion:

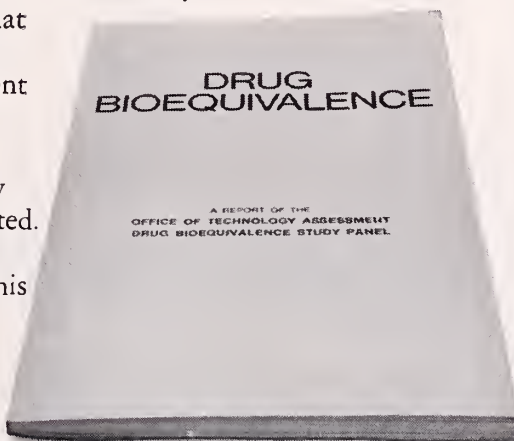
If the pharmacist substituted a chemically equivalent drug for the one you have specified for your patient—could you be certain of that product's safety and effectiveness simply because the chemical content is the same?

Definitely not, unless bioequivalence tests and other quality assurance checks had been conducted. The pharmaceutical industry and many scientists have maintained this position for years, but others have questioned it. Now the Office of Technology Assessment of the Congress of the United States has reported on the issue in its Drug Bioequivalence Study.\*

Here are a few definitive statements in the O.T.A. report:

"...the problem of bioinequivalence in chemically equivalent products is a real one. Since the studies in which lack of bioequivalence was demonstrated involved marketed products that met current compendial standards, these documented instances constitute unequivocal evidence that neither the present standards for testing the finished product nor the specifications for materials, manufacturing process, and controls are adequate to ensure

that ostensibly equivalent drug products are, in fact, equivalent in bioavailability.



"While these therapeutic failures resulting from problems of bioavailability were recognized and well documented, it is entirely possible that other therapeutic failures and/or instances of toxicity that had a similar basis have escaped attention."

The Pharmaceutical Manufacturers Association supports federal legislative amendments that would require manufacturers of duplicate prescription pharmaceutical products, subject to new drug procedures, to document:

(a) chemical equivalence; and

(b) biological equivalence, where bioavailability test methods have been validated as a reliable means of assuring clinical equivalence; or (c) where such validation is not possible, therapeutic equivalence.

In addition, the PMA supports federal legislation that would require certification of all manufacturers of prescription products before they could start in business, annual inspections and certification thereafter, and strict adherence to FDA regulations on good manufacturing practices.

The overall quality of the United States drug supply is excellent. But only a total quality assurance program, envisaged in these and other policy positions adopted by the PMA Board of Directors in 1974, can bring about acceptable levels of performance by all prescription drug manufacturers and thereby assure the integrity of your prescription...



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W.  
Washington, D.C. 20005

\*Copies of the complete report on Drug Bioequivalence may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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		<b>LIPO-NICIN/300 mg.</b> Each timed-release capsule contains: Nicotinic Acid .....300 mg. Ascorbic Acid .....150 mg. Thiamine HCL (B-1) .... 25 mg. Riboflavin (B-2) ..... 2 mg. Pyridoxine HCL (B-6) ... 10 mg. <b>DOSE:</b> 1 to 3 tablets daily. <b>AVAILABLE:</b> Bottles of 100, 500, 1000

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# CASE REPORT

*A 24-year-old drug abuser developed an isolated presumably septic arthritis of the sternoclavicular joint probably caused by Staphylococcus Aureus. The clinical diagnosis was made prior to the appearance of any radiologic findings. Awareness of this entity, early recognition, and institution of appropriate therapy are important to forestall irreversible joint destruction.*

## Sternoclavicular Arthritis An Unusual Complication Of Drug Abuse

**Vasantha Nair, M.D./Paramus\***

Infections rank high among the many complications to which the drug abuser is prone. Involvement of the bones and joints, however, is by no means frequent. Hussey and Katz,<sup>1</sup> who observed 102 infections in their study of 365 addicts, did not come across any case of infection affecting bones or joints.

In the occasional patient in whom these are involved, there is predilection for rather unusual sites. There have been several reports of vertebral osteomyelitis among drug abusers.<sup>2,3</sup> More recently, involvement of the sternoclavicular joint has been reported by Goldin, *et al.*<sup>4</sup> The present communication describes a young drug user who presented with septic arthritis of the sternoclavicular joint.

### Case Report

A 24-year-old Caucasian male truck driver was admitted to Bergen Pines Hospital in January, 1974 with fever, chills and painful swelling of the right sternoclavicular joint of four days' duration. He admitted to having taken two injections of cocaine intravenously two days prior to onset of symptoms. The patient categorically denied any history of prior drug use.

On physical examination, he was febrile and the right sternoclavicular joint was swollen, warm and tender with painful limitation of movements in the affected extremity. Tender lymph nodes were palpable on the right side of the neck. There was no evidence of infection elsewhere in the body. The leukocyte count was 17,350/cmm, 53 percent of which were neutrophils and 25 percent band forms. Hemoglobin was 15.2 gm percent. Blood urea nitrogen and glucose were within normal limits. Latex test for rheumatoid factor was positive in a dilution of 1:40. Tests for antinuclear antibodies and LE cells were negative.

A presumptive diagnosis of septic arthritis was made, rheumatoid arthritis having been considered unlikely because of the monoarticular involvement. The positive test for rheumatoid factor was thought to be a non-specific

phenomenon as observed among drug users.<sup>5</sup> Attempted joint aspiration was unsuccessful. Blood culture yielded no growth. The patient was empirically placed on a combination of cephaloglycin and garamycin. Pseudomonas infection was presumed because it was found in three of the four cases reported by Goldin, *et al.*<sup>4</sup> Our patient differed significantly from their patients in that he was not a habitual drug abuser. This fact and the recognition that the only patient in their study who had sought medical attention early had responded well to methicillin, prompted us to change over to the latter antibiotic (2 gm every 4 hours) on the third hospital day. Within the next three days the joint swelling began to subside and was no longer discernible by the tenth hospital day. Methicillin was continued for four weeks. Limitation of joint movements totally abated within a fortnight. At the time of discharge, tomograms revealed no evidence of joint destruction.

### Discussion

Isolated septic arthritis of the sternoclavicular joint is very infrequent. Taleisnik, *et al.*<sup>5,6</sup> pointed out that only 18 such cases have been reported in the literature. Chartier, *et al.*,<sup>7</sup> observed that this joint was involved only once in 84 joints affected by bacterial arthritis. Sternoclavicular joint involvement as part of a polyarthritis is more common. The condition has been observed in diabetes<sup>8</sup> as well as in destructive joint processes such as rheumatoid arthritis.<sup>9</sup> Involvement of the joint has also followed subclavian venous catheterization.<sup>10</sup>

The joint seems to be selectively involved in drug abusers. The reasons for this remain obscure. Apparently it is not related to duration or chronicity of drug use. Local anatomic factors that could predispose to infection were not present in the reported cases. Osteoarthritis, although reported as early as in the third decade,<sup>11</sup> is a rarity in young adults. Only three cases which showed degenerative changes in

\*From the Department of Medicine, Bergen Pines County Hospital, Paramus where Dr. Nair is a medical resident.

joints in a series of 200 autopsies belonged to the 18 to 29 year age group.<sup>12</sup> It therefore seems unlikely to have played any role in these patients.

It has been established that the occurrence of septic arthritis is more likely if the joint has previously been damaged by trauma.<sup>13</sup> Even mild repetitive trauma such as that caused by arm movements can cause tears in the weak intra-articular ligament of the sternoclavicular joint.<sup>14</sup> Since our patient was a truck driver and the right sternoclavicular joint was involved, it is attractive to postulate that repeated use of the limb with consequent possible trauma to the joint may have had a role in the pathogenesis of sepsis of the joint in his case.

As in the case under review, the diagnosis has to be made on clinical grounds in patients who present soon after the onset of symptoms. The blood culture is unlikely to be positive: only eight out of 71 cases of monoarticular arthritis involving various joints reported by Kelly, *et al.*,<sup>15</sup> yielded positive cultures. Aspiration of the joint is likely to be unrewarding as well.

Needless to say, identification of the infecting agent is imperative for specific therapy. Three of the four cases reported by Goldin, *et al.*, presented to the physician three to four weeks after initial symptoms were recognized; by this time radiologic evidence of bone involvement was evident. Their fourth patient, as well as our patient, was seen much earlier. *Pseudomonas* was the causative agent in the three former cases. It would seem from this very small series that those who seek medical attention early (before changes are demonstrable radiologically) are unlikely to have *pseudomonas* infection. It is judicious, therefore, to suspect staphylococcus as the offending organism in such cases and to institute appropriate antibiotic therapy.

Though rare, the entity of sternoclavicular arthritis in the addict, as well as in the oc-

casional drug user, needs to be borne in mind. This would ensure that these cases are recognized early and promptly treated, thus avoiding such dire sequelae as joint destruction.

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East Ridgewood Avenue

# NEW JERSEY DOCTORS' NOTEBOOK

## President's Farewell Address\*

James A. Rogers, M.D.

A year ago it was a privilege for me to address you as the 182nd incoming President of The Medical Society of New Jersey. You have provided me with the opportunity to have the most rewarding year of my life, filled with many challenges and exciting experiences, and I thank you. Along with you, I thank the past-presidents of this Society who served so wisely and well before me. I now fully appreciate the sacrifices they made that were necessary to accomplish the noble tasks the history of MSNJ so proudly records. To those who will be privileged to follow in their footsteps I wish them well and know they will experience a fulfillment of purpose, most difficult to describe. The many accomplishments of the year, as in every year, are brought about by the loyalty and cooperation, the input, and the actual work of the members of the Society through the various committees, and also by the efforts of our excellent staff at the headquarters in Trenton. To all of you, my thanks for all you have done in addressing the challenges before us.

Problems and issues are ever with us. There is no "we" or "they" when it comes to seeking solutions in the Medical Society. There is only "us." Therefore, we must work together and strive to find the answers to our problems. In these days of rapid change and adjustment to our way of life, it appears that we are confronted with one crisis after another. We in medicine, responsible for the delivery of the majority of medical care, now find that we are sharing this responsibility with many others. We have and must continue to respond by deeds and by action to the leadership role in the delivery of quality health care and quality medical care to our patients and to the people of New Jersey. We are doing just that. If it appeared to some that we overly emphasized communications with our potential allies, critics, and with the media, we admit to such a course of action. This approach represented the thought that dialogue with

others is more fruitful than endless analysis and discussion among ourselves. A better understanding of the issues that result from such a dialogue produces good policy decisions based on firm understanding of the problems they are intended to solve.

Our active involvement and our input into this rapidly changing system are very important. The principles of the delivery of quality medical care and the ethics of the physician who delivers this care have not changed. What has changed and what perhaps will change even more is the manner in which health care will be delivered. Thus it behooves each of us to be ever-mindful of these principles and ethics and of our individual and collective responsibility. We must have positive input in the way health care is to be delivered, backed by facts and substantial evidence. We cannot afford to be rigid in our ideas, but must be flexible enough to permit innovation where the need for improvement is demonstrated. We must continue to be totally involved.

As physicians we must continue to be ever-mindful of our allegiance to addressing human needs, and the necessity to be creative and free to respond to medical and health care needs with our allies in the health care field. As one of the important leaders of the health delivery system we must strive for unity. In order to achieve unity, we as physicians must continue to be united and to be represented by strong leadership at all levels. Such solidarity must be present at the hospital medical staff level, the county level, and perhaps more importantly on the state and national levels. A strong MSNJ and a strong AMA will respond to the needs and the problems of the profession.

I urge each physician in this State, whether a member of organized medicine or not, to evaluate these remarks in light of the present

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\*Delivered before the 1975 House of Delegates, MSNJ, Second Session, June 1, 1975, Cherry Hill.



socio-economic and political climate, to determine his contentment with the situation, and to decide on a course of active participation and not one of passive resistance. Every physician must make his views known and help to offer solutions to our problems rather than compound them via unconstructive criticism.

The problems that confront us today and the problems of tomorrow must be solved by those familiar with them. We cannot be indifferent to these problems, we cannot afford non-involvement. Many of us fought a war as a result of complacency and non-involvement of the many, and by the decision-making of a few. Let

us not permit that to happen now.

We have made good progress in maintaining our leadership position in the delivery of health care. It appears that others are striving to wrest this leadership from the medical profession. We cannot and will not permit them to succeed, for to do so would render a disservice to the people of New Jersey.

To my colleagues who will follow in serving The Medical Society of New Jersey and through it the people of New Jersey, I wish every success and I pledge my support, cooperation, and loyalty.

### The Old Helping Hand Organization

Many of the younger doctors do not know that there exists in our state a unique helping hand organization, known as the Society for the Relief of the Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance

to the dependents of a deceased member. It lends money without interest to assist widows and orphans of doctors who have known adversity.

For details, write to the Society at P.O. Box 95, Belleville, New Jersey.

## Trustees' Minutes

April 20, 1975

A regular meeting of the Board of Trustees was held on April 20, 1975, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

*Council on Legislation . . .* Approved, as amended, draft legislation on reform of medical malpractice laws, as called for by Resolution #13 of the 1974 House of Delegates.

*Diagnostic Center for Mental Retardation . . .* Approved the following recommendations from the Council on Mental Health:

(1) That there be established two diagnostic centers in New Jersey (one for neurology and one for enzyme studies), one within the College of Medicine and Dentistry of New Jersey

at Rutgers and one within the College of Medicine and Dentistry of New Jersey at Newark.

(2) That The Medical Society of New Jersey *acknowledge the efforts of* Drs. Theodore Kushnick and Larry Taft (at Newark and Rutgers), who are already conducting genetic counseling on an *ongoing* basis, and urge the development of a detailed program which would serve the entire State. (Italics reflect amendments by the Board of Trustees.)

(3) That The Medical Society of New Jersey endorse Dr. Kushnick's attempt to provide space for a tertiary diagnostic center for mental retardation which should be available in September 1975, after the opening of certain buildings at the College of Medicine and Dentistry of New Jersey at Newark, and that any available equipment, particularly the equipment at Johnstone (Bordentown), be transferred to Dr. Kushnick at the Medical School in Newark.

(4) That The Medical Society of New Jersey support a recommendation to Ann Klein, Commissioner of Institutions and Agencies, to transfer any available equipment currently at Johnstone in Bordentown to the *Diagnostic Center at the College of Medicine and Dentistry of New Jersey at Newark*. (Italics reflect amendments by the Board of Trustees.)

*Child Study Team* . . . Approved the following recommendation from the Council on Public Health:

That MSNJ request the Department of Education to require that a report on all children evaluated by a child study team be sent to the consulting physician as to the disposition of the child and, if possible, when the child is conferred, that the consulting physician be present to contribute to the medical judgment and to insure a better functioning of the child study team.

*Child Abuse Law* . . . Noted that the Division of Youth and Family Services has prepared guidelines for use of health professionals in implementing the new Dodd Child Abuse Law; these will be distributed to hospital emergency rooms and the social service and pediatric departments of hospitals.

. . . Approved the following recommendation from the Council on Public Health:

That the Board of Trustees cooperate with the Division of Youth and Family Services by granting approval for dissemination of information on the new Dodd Child Abuse Law by DYFS, in the form of the revised guidelines, and that the Special Committee on Child Health have input and feedback with DYFS on proposed amendments to the Dodd law.

*Eye Health Screening Program* . . . Approved the following recommendation from the Council on Public Health:

That the Eye Health Screening Program be conducted in 1975, using the same procedures as in previous programs, and, so that it will not conflict with the national meeting, the date be determined by the Chairman after he confirms the meeting dates for the American Academy of Ophthalmology and Otolaryngology.

*New Jersey Education Association Convention* . . . Approved the following recommendation from the Council on Public Health:

That MSNJ suggest to the NJEA the possibility of MSNJ setting up a health area for the organizations (exhibiting at the NJEA Association Convention) to conduct various health screenings (eyes, blood pressure, sugar).

*Specialists on Legislative Council* . . . Disapproved the following recommendation from the Council on Public Health, noting that each specialty is notified prior to meetings of the Council on Legislation and invited to have representation present:

That consideration be given to the Council on Legislation expanding its membership to include a member from each specialty.

*Liaison with Paramedic Groups* . . . Disapproved the following recommendation from the Council on Public Health, noting that liaison does exist with various medical groups and that meetings are held informally for discussion of topics of mutual interest without minutes being kept:

That if MSNJ has liaison with paramedic groups, the particular committees be kept informed of the proceedings or a set of the minutes be sent to the committee for its information and reference.

*Standards for Obstetrical Departments* . . . Referred back to the Committee on Maternal and Infant Welfare the following recommendation from the Council on Public Health, with suggested wording for item #4:

That the Board of Trustees approve the revised standards for obstetrical departments, to be distributed to all New Jersey Hospitals.

*Item #4* — Except for the patient of *an obstetrician with unlimited privileges* in his hospital, consultation is required in the following situations with the report signed by the consultant on the patient's chart: (Italics indicate suggested amendments by the Board of Trustees.)

*Tissue Banks* . . . Approved the following recommendation from the Council on Public Health concerning Resolution #25 — calling for compilation of list of tissue banks and their locations to be available to physicians who may require organs for transplantation — (1974 House of Delegates) which had been referred by the Board of Trustees to the Council on Public Health:

That the Council on Public Relations be charged with the writing of an article for the news media for the purpose of educating the public to the vital importance of the donating of organs upon their demise, for surgical transplantation.

*Finance and Budget Committee* . . . Approved the report of the Finance and Budget Committee, which will appear in its entirety in the Transactions issue of *The Journal*, and the following recommendations:

(1) That the Board of Trustees authorize the total sum of \$25,000, allocated in the 1974-75 budget, be paid to the Academy of Medicine of New Jersey.

(2) That up to \$25,000 be included in the budget of the Committee on Medical Education for 1975-76 for postgraduate educational programs and activities, and that the Committee, with the concurrence of the Board of Trustees, be empowered to expend up to this amount in the course of the administrative year, on the basis of need of *the Academy of*

*Medicine* reflected in its 1975-76 fiscal report, to be submitted to the Committee on Finance and Budget. (Italics indicate amendment by the Board of Trustees.)

(3) That this Fund (Litigation Fund, authorized by the Board of Trustees 2/16/75) be subject to annual review by the Committee on Finance and Budget and, if and when any litigation is initiated, such action have prior approval of the Board of Trustees.

(4) That the 1976 per capita assessment be set at \$110; that of the \$110 per capita assessment, \$5 and \$2.50 respectively be designated for the member's *Journal* subscription and Annual Meeting registration; and that the full amounts realized as of May 31, 1976, be applied in 1976.

(5) That the Special Committee on Long Range Planning and Development be charged to study, evaluate, and recommend on the feasibility of *unifying the fiscal accounting year and the dues year*. (Italics indicate amendment by the Board of Trustees.)

(6) That the Special Committee on Long Range Planning and Development submit its recommendation to the Board of Trustees no later than September 8, 1975.

*Position Statement on the Physician's Assistant* . . . Voted to support the following Position Statement on the Physician's Assistant submitted by the Joint Practice Committee (MSNJ and New Jersey State Nurses' Association):

1. That physician's assistants not be approved until such time as a demonstrated need is evident; and
2. That graduate courses for nurses be developed and augmented.

*New Jersey Hospital Association* . . . Received as informational the following report of the April 16th meeting of NJHA — John S. Madara, M.D., MSNJ's liaison representative:

The Board of Trustees of the New Jersey Hospital Association took the following significant actions:

1. Voted to recommend to the Annual Meeting of NJHA:

(a) That by May 5, hospitals attach notices on Blue Cross bills notifying patients that they may be responsible for any balances not paid by Blue Cross;

(b) That by September 1, 25,000 employees of hospitals disengage from Blue Cross coverage and switch to a self-insurance program;

(c) That by June 1, Blue Cross patients will be asked to make a deposit on admission to cover the difference between per diem rate and hospital costs; (Dr. Madara voted against this action.)

(d) That the agent for Medicare be changed from Blue Cross to Prudential;

(e) That a public relations and educational program be intensified; and

(f) That a per diem rate system with a commercial insurance carrier be investigated.

2. Voted to approve the formation of a Council on Hospital Auxiliaries as a part of the New Jersey Hospital Association to take the place of the New Jersey Association of Hospital Auxiliaries.

3. Voted to support SCR-3001 creating a special committee to investigate medical malpractice insurance costs and availability.

4. Voted to oppose A-1552 (the Salkind bill).

5. Voted to oppose A-3093 establishing a Department of Mental Hygiene as a principal department in the Executive Branch of State government.

*MSP Board of Trustees* . . . Directed that the following nominations, submitted by MSP for terms on the Board of Trustees of MSP be referred to the 1975 House of Delegates.

*Three-year term (1975-1978):*

<i>Name</i>	<i>Type of Practice</i>	<i>Member of Component Society</i>
Donald T. Akey, M.D.	Surgeon	Middlesex
Robert G. Boyd	Businessman	—
Joseph A. Cox, M.D.	Anesthesiologist	Essex
Frederick L. Hipp, Ed.D.	Exec. Vice-Pres. (NJEA)	—
Josephine B. Janifer	Social Worker	—
William M. Mortenson	Businessman	—
James A. Rogers, M.D.	Internist	Passaic
Sidney I. Simon, Ph.D.	College Professor	—
Morgan Sweeney	Businessman	—
Robert E. Verdon, M.D.	General Practitioner	Bergen
<i>Two-year term (1975-1977):</i>		
Charles I. Nadel, M.D.	Orthopedic Surgeon	Essex
<i>One-year term (1975-1976):</i>		
Leonard D. Koch	Businessman	—
Kevin J. Coakley, Esq.	Attorney	—



## CMDNJ Notes

Stanley S. Bergen, Jr., M.D.  
President, CMDNJ

Each year brings greater fulfillment of the hope and promise of our contribution to the well-being of the people of the state. This month ninety-seven new physicians from the College of Medicine and Dentistry of New Jersey will enter the mainstream of medicine through New Jersey hospitals, a greater number than ever before. Twenty-nine of them will fill half of the house staff vacancies at Martland Hospital in Newark. This response to Martland's need is especially gratifying.

Last year, 82 CMDNJ-educated physicians chose New Jersey for internship and residency; the year before the number was 41, and in 1972 it was 33. This is good news for New Jerseyans because as we all know a significant number of physicians tend to enter practice near the hospitals in which they do their graduate training.

At the CMDNJ-Rutgers Medical School, the second four-year class of 34 will be awarded M.D. degrees this June. The school will also grant M.M.S. degrees to 92 students, about half of whom will be completing their medical training at the school. As soon as we initiate construction of our College teaching hospital in Piscataway, I'm sure that we will no longer be required to export so many of our students for the benefit of other states. The Accreditation Committee has made it clear that further expansion of the 3rd and 4th years is dependent upon the hospital's approval.

Placement of medical school graduates is largely through the National Intern and Resident Matching Program, whose members are the American Medical Colleges and four other organizations of major stature in medicine. For various reasons, not all graduates enter the program — those, for example, entering the armed forces or studying for a Ph.D. degree. About half of CMDNJ's graduates were matched with their first-choice hospitals, and virtually all were accepted by one of the first three hospitals that they favored. Of all 112 prospective graduates at CMDNJ-New Jersey

Medical School, Newark, 100 entered the matching process and only one was unmatched. This compared very favorably with the national "unmatched" average of 5 per cent in past years.

Fifty-two graduating from CMDNJ-New Jersey Medical School elected to stay in New Jersey. They will work at Martland, at six hospitals affiliated with the school, including the Veterans Administration Hospital in East Orange, and at five unaffiliated institutions. The hospitals stretch from Newark to as far as Cooper Hospital in Camden.

A group of 64 students studying in what is known as the Fifth Pathway program at CMDNJ-Rutgers Medical School are among those who are completing their studies this year and taking hospital posts. Of these, 37 will remain in New Jersey, including seven at Martland; one at Raritan Valley Hospital, Green Brook, which is another CMDNJ teaching hospital, and the rest at 11 CMDNJ-affiliated and unaffiliated hospitals. Fifth Pathway participants are physicians with U.S. undergraduate degrees and M.D.'s from foreign medical schools who, because they have received inadequate clinical exposure, take an extra year of training when they return to this country. Obviously the Fifth Pathway here is an excellent program for augmenting the supply of physicians, and New Jersey is benefiting from the devotion to the profession exhibited by the men and women in it. It is safe to say, I think that without the Fifth Pathway very few, if any, of the 37 would now be ready to matriculate into house-staff training programs in this state.

In addition to Martland, Raritan Valley, Cooper, and the VA, New Jersey hospitals that will be receiving CMDNJ graduates are:

CMDNJ-RMS Community Mental Health Center, Piscataway; Englewood Hospital, Englewood; Hackensack Hospital, Hackensack; Hunterdon Medical Center, Flemington; Jersey City Medical Center, Jersey City; Jersey Shore Medical Center, Neptune; Monmouth Medical Center, Long Branch; Morristown Memorial Hospital, Morristown; Muhlenberg Hospital, Plainfield; Newark Beth Israel Medical Center, Newark; Overlook Hospital, Summit; Princeton Medical Center, Princeton; St. Barnabas Medical Center, Livingston; St. Joseph's Hospital and Medical Center, Paterson; Saint Michael's Medical Center, Newark; Somerset Hospital, Somerville, and United Hospitals of Newark, Newark.

Of those leaving the state for their internship and residencies, the greater number, 28, will be going to New York. Others will fan out across the country, as far west as California and Hawaii, as far north as Canada and as far south as Florida, Louisiana and Texas.

Medicine predominates among the graduates' favored specialties, followed by surgery, obstetrics/gynecology, family practice, pediatrics and psychiatry.

All 1975 graduates of the College were honored on Monday, June 2, at CMDNJ's college-wide graduation exercises, at the Garden State Arts Center, Holmdel. Lawrence L. Weed, M.D., professor of medicine and community medicine at the University of Vermont, delivered the commencement address, and Charles M. Goss, M.D., visiting professor of anatomy, George Washington University; Charles A. Hufnagel, M.D., professor and chairman, department of surgery, Georgetown University; George C. Paffenbarger, D.D.S., senior research associate, American Dental Association Health Foundation Research Unit, National Bureau of Standards, and Lloyd B. Wescott, chairman of the board of trustees of Hunterdon Medical Center, Flemington, received honorary degrees awarded by the Board of Trustees upon recommendation of the faculties of the College.

## Cancer Institute of New Jersey

The Cancer Institute of New Jersey was recently formed through the cooperative efforts of medical and business leaders "to expand and coordinate the entire field of cancer diagnosis and treatment throughout the state," and "to provide coordination and stimulus for cancer research." The Institute, which will be directed by Celestino Clemente, M.D., Chief of Staff of United Hospitals of Newark, will maintain offices in Newark under the administration of Mr. C. Rodney Horner.

CINJ's activities will include the development of a statewide tumor registry, detection centers for

screening and diagnosis of potential cancer in conjunction with community hospitals, professional educational programs, and public information. Although the Cancer Institute will not provide treatment nor operate a central medical facility, it will cooperate with the College of Medicine and Dentistry of New Jersey, the New Jersey Division of the American Cancer Society, and a number of research institutions in the state. The trustees include men and women who currently provide leadership in business, health, education, government, and the legal and medical professions in New Jersey.

## Update on HMO's in New Jersey

HMO regulations have been implemented by the New Jersey State Commission of Health. The Basic Health Services to be provided are:

### 1. *Health Professional Services*

- (a) Periodic examination and office visits by a physician in order to facilitate patient management plans
- (b) Periodic screening examinations and disease detection studies
- (c) Obstetrical care (pre and postnatal care of mother)
- (d) Regular pediatric care, including newborn care and immunization as medically necessary
- (e) Services of a surgeon
- (f) Anesthesia
- (g) Inpatient medical care in hospital and/or skilled nursing facility
- (h) Diagnostic and therapeutic radiology
- (i) Consultations and specialist's services as requested by the attending physician.
- (j) Twenty-four-hour a day emergency services, seven days a week
- (k) Short-term physical medicine (including physical therapy)
- (l) House calls when medically indicated
- (m) Out-of-area health services when indicated for accidental injury or emergency illness
- (n) Diagnostic laboratory services

(o) Short-term (not to exceed twenty visits) outpatient evaluative and crisis intervention mental health services.

## 2. Institutional Services

(a) Inpatient hospital care, including semi-private room accommodation and other inpatient hospital services, medications as appropriately ordered by the physician(s) responsible, and supplies that are usually provided by the hospital.

(b) Skilled nursing facility services

(c) Home-health services

(d) Emergency and out-of-area hospital services when indicated for injury or emergency illness

## 3. Supportive Services

(a) Ambulance services when ordered by a member of the staff for emergency services

(b) Health education services, including nutrition services

(c) Medical social services

(d) Preventive health services (including voluntary family planning services, infertility services, preventive dental care for children and children's eye examinations conducted to determine the need for vision correction)

## Definitions:

**Operational HMO** Organizations that have begun the delivery of prepaid health care

**Formational HMO** Organizations that have indicated to us a definite decision to form an HMO

**Planning HMO** Organizations studying the feasibility of HMO development

The following is the status of HMO development in New Jersey:

### Operational HMO's

Mercer Regional Medical Group, Trenton  
Catherine D. McHugh, Administrator

Vineland Family Health Center, Vineland  
J. A. Pacera, Executive Director

### Formational HMO's

Group Health Plan of New Jersey, Guttenberg  
Ridge Applegate, Executive Director

Central Essex HMO, Orange  
David A. Connolly, Executive Director

Metropolitan Community Health Plan, East Orange  
Robert Detore, Executive Director

Newark Comprehensive Health Services Plan, Newark  
CMDNJ

South Shore Health Plan, Atlantic City  
Robert H. Barney, Executive Director

Rutgers Community Health Plan, New Brunswick  
Roger Birnbaum, Executive Director

Health Care Plan of New Jersey, Moorestown  
Irwin S. Smith, M.D., Executive Director

### Planning HMO's

Camden Hospital Service Corporation, Camden  
Sister Corey, Director

Paterson Family Health Center, Paterson  
W. J. Wollenberg, M.D., Director

Westside Community Health Plan, Newark  
Murray Pine, M.D., Acting Director

Co-Med, Inc., Morristown  
R. G. Boyd, Director

North Hudson, Weehawken  
Mr. Wert, Director

North Jersey Community Union, Newark  
Kenneth Peterson, Executive Director

Timothy Still Memorial Center, Newark  
J. W. William, Executive Director

City of Jersey City  
Ms. Rosemary Doherty, Coordinator

Stat Care, Inc., Pennsville  
Mrs. C. D. Pelure, Project Director

Essex County Medical Society, Newark  
George L. Benz, M.D., Principal Investigator

A new pamphlet (HMO's, Questions/Answers) is available from the New Jersey State Department of Health, HMO Programs, P.O. Box 1540, Trenton 08625.

## Where We Stand

*Where We Stand*, a pamphlet delineating MSNJ's official position on medical and health issues, is available upon request from the Public Relations Office, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.



## Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during March and April 1975:

	1975 March	1974 March
Aseptic meningitis	18	2
Primary encephalitis	3	2
Hepatitis: Total	181	263
Infectious	70	91
Serum	35	64
Unspecified	76	108
Malaria (Civilian)	3	0
Meningococcal meningitis	0	1
Mumps	82	71
German measles	89	111
Measles	37	1038
Salmonella	68	111
Shigella	9	62
Tuberculosis	85	144
Syphilis:	65	60
Primary	19	
Secondary	46	
Gonorrhea	1276	1260

	1975 April	1974 April
Hepatitis: Total	190	185
Infectious	66	74
Serum	32	38
Unspecified	92	73
Meningococcal meningitis	0	4
Mumps	46	66
German measles	353	70
Measles	69	1222
Salmonella	47	55
Shigella	10	46
Tuberculosis	66	125
Syphilis	73	80
Primary	39	
Secondary	34	
Gonorrhea	1246	1796

Note: Gonorrhea, syphilis, and tuberculosis are figures for the previous month.

### Psittacosis

Psittacosis is an infection specifically produced by an organism in the chlamydia group. It is endemic among birds, primarily parrots and parakeets, although human cases have occurred from contact with turkeys, pigeons, ducks, chickens, pheasant, finches, and other fowl. Although the avian disease can be fatal, infected birds frequently show only minimal evidence of

illness. Asymptomatic birds carrying the organism are common. When transmitted to man the organism can produce asymptomatic infection, an influenza-like illness, or serious pneumonic disease characterized by high fever, headache, cough, myalgia, pulmonary infiltrate, and a significant mortality. The mild or asymptomatic infections are probably much more frequent.

On January 1, 1975, a physician's wife suffered severe pain in her chest lasting two days, followed by chills, headache, and fever to 104°F. On January 6, chest x-ray revealed pneumonia and treatment with penicillin was started. Delirium and vomiting followed; treatment was changed to tetracycline. The patient subsequently improved and made an uneventful recovery. A diagnosis of psittacosis was confirmed on serologic tests which demonstrated a significant rise in complement-fixing antibodies during convalescence. On January 8, the titer was 1:8, on January 14, it increased to 1:64. A convalescent specimen taken January 30 was 1:32. This was the first confirmed case of psittacosis in New Jersey in at least four years.

The patient's probable exposure had occurred on December 23 when she entered a pet store aviary. Blood specimens were submitted on 30 psittacine birds from the aviary and at least 9 had significantly high titers. Approximately 40 birds were submitted to the Center for Disease Control in Atlanta and *Chlamydia psittacae*, the etiologic agent for psittacosis, was isolated from eight birds. Employees at the pet store were tested; four of the 16 had significantly high titers without significant history of associated respiratory illness.

To determine the significance of these findings, a surveillance program was initiated which is presently underway. Retail and wholesale aviaries were selected from which birds are being tested. Although selection of locations was random, attention was also given to stores purchasing from the distributors who supplied the infected store. Preliminary findings demonstrate significant titers in larger psittacine birds such as parrots, conures, and cockatiels arriving in this country through various quarantine stations. Parakeets raised in the United States which have

not been exposed to an environment in which the larger birds are kept have had consistently satisfactory titers.

There is no question that psittacosis is both under-diagnosed and under-reported in New Jersey. The specific diagnosis of psittacosis is of extreme importance because of its potential severity (reported fatality rates range from 5 to 40 percent), its response to antibiotic agents, and the public health significance of psittacosis infection. The extent of the avian and human infections recently documented in New Jersey remains to be defined. Physicians and other health delivery personnel are urged to consider psittacosis in any respiratory illness if there is exposure to birds.

## Report from the Foundation

**Daniel J. O'Regan, M.D., Medical Director**

The "deadline" for implementing the regulations for Medicare and Medicaid cases was extended to July 1, 1975. These regulations, introduced last November, were to have been in effect by February 1, then April 1, and, as of now, July 1. HEW expects the hospitals and other providers to be in "full compliance" by July 1.

Since these regulations have a great deal to do with utilization review (as does the PSRO law), the *Utilization Review Coordinator* will play a vital role in these review functions. Various hospitals use different titles — Nurse Coordinator, Quality Assurance Coordinator, Patient Review Coordinator, and so on. Her concern will be mainly in the concurrent review area, including admission certification and continued-stay review. Her role has been misunderstood since the concept and the title appeared in the Quality Assurance Program a few years ago. Medical staffs voiced their fears that a non-physician would be denying ad-

missions and dictating discharges to their patients. The coordinator has no such authority.

The coordinator is responsible to the chairman of the utilization review committee, of which she may be a member. Using the criteria selected and adopted by the committee, she checks the charts daily. She determines whether the criteria for admission under a particular diagnosis or problem are met (that's what criteria are for in utilization review: screening tools only); she then assigns a date of the next review of the hospital stay. For this purpose, she uses such regional norms as HUP or PAS, and picks the date which is the 50th percentile for the diagnosis and age. If she has problems with either of these tasks, she consults her physician advisor for the day (he is also a utilization review committee member). Any questionable items are discussed with physicians; any negative decisions are made by physicians. She can only agree with the chart as documented (and that's the key word), or she must consult physicians. Medical staff should cooperate with her — discuss the care and problems with her, but don't fear her. She is there to help you and your utilization committee — she will follow its directions.

We feel that a nurse will be more capable of doing this work. Nurses understand the problems of hospitalized patients; they know medical terminology not only as words, but as indications from their own experience. The coordinator will usually be a hospital employee; in PSRO's where some hospitals are not delegated to do review, she will work for the PSRO. The functions will be the same, and she will answer to the utilization committee in both circumstances.

Why are these people in your hospital? Do *you* want to check all the charts on the floors, keep track of dates, tally data on abstract forms, and so forth? She will save the time of doctors so that they can use their knowledge to participate where it counts — in assessing the medical necessity, appropriateness, and quality of care.

**PATRONIZE OUR ADVERTISERS**

# Both often



● Predominant  
psychoneurotic  
anxiety

● Associated  
depressive  
symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful



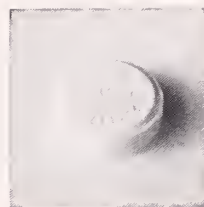
# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



## Valium<sup>®</sup> (diazepam)

2-mg, 5-mg, 10-mg tablets

in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

and tolerance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider the fully pharmacology of agents combined; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate sedation. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories  
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Nutley, New Jersey 07110

# PHYSICIANS SEEKING LOCATION IN NEW JERSEY

*The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.*

**ANESTHESIOLOGY** — Mohan H. Kulkarni, M.D. 254-20 74th Street, Glen Oaks, New York 11004. Bombay (India) 1967. Board eligible. Group, partnership, solo, hospital. Available.

Purshottam B. Bhangdia, M.D., 9111 Church Ave., Brooklyn, New York 11236. Medical College, Nagpur, India (1962). Group or partnership. Available July 1, 1975.

S. A. Khan, Room 1018, 5 East 98th Street, New York 10029. Osmania (India) 1966. Board eligible. Group or partnership. Available August 1975.

**CARDIOLOGY** — Thomas J. Maley, M.D., 6791 Fisk Ave., San Diego, California 92122. CMDNJ 1970. Board eligible. Any type practice, coronary care and cardiac catheterization desired. Available July 1976.

**GENERAL PRACTICE** — Ping-Fu Tsai, M.D., 3207 Walters Lane, Apt. 103, Forestville, Maryland 20028. Kaohsiung Medical College (Taiwan) 1970. Group, partnership, out-patient clinic or emergency room. Available July 1975.

Leonard S. Spoto, Jr., M.D. 4266-1 Wilmington Drive, Andrews AFB, Maryland 20355. Bowman Gray 1971. Group (no OB). Available 1976.

**INTERNAL MEDICINE** — Pravinbhai C. Patel, M.D., 254-22 74th Ave., Glen Oaks, New York 11004. Baroda Medical College (India). Board certified. Subspecialty, pulmonary medicine. Group, partnership, solo. Available July 1975.

Shyam S. Tangri, M.D., P.O. Box 1749, Butler, Pa. 16001. Medical College, Amritsar, India 1961. Subspecialty, chest diseases. Board eligible. Group, partnership, institution. Available.

Fred H. Hyer, M.D., 6640 SW 5th Street, Hollywood, Florida 33023. CMDNJ 1970. Board eligible. Group or solo. Available August 1975.

**OBSTETRICS AND GYNECOLOGY** — Jagannath Das, M.D., 3384 Scranton Road, Cleveland 44109. Calcutta Medical College (India) 1959. Board eligible. Group or partnership. Available July 1975.

Giunn Sheau Cheng, M.D., 1757 East Raleigh Court, Apt. 168-A, Ocean, New Jersey 07712. Taiwan 1964.

Board eligible. Group or partnership. Available July 1975.

**OPHTHALMOLOGY** — Jehanger Durrani, M.D., 275 Hollister Dr., E. Hartford, Connecticut 06118. King Edward Medical College, Lahore, Pakistan, 1963. Board certified. Association/partnership, group, or hospital-based practice. Available.

**ORTHOPEDIC SURGERY** — Cornelius I. Nicoll, M.D., 117 Westview Road, Montclair, New York 07043. Bucharest (Romania) 1963. Group, partnership, hospital, or solo. Available July 1975.

**OTOLARYNGOLOGY** — Malayandi Raja, M.D., 86-16 60th Avenue, Apt. 6-L, Elmhurst, New York 11373. Madras (India) 1957. Board certified. Solo. Available.

**PATHOLOGY** — Yogini J. Shroff, M.D., 3 Blackwell Avenue, Morristown 07960. B.J. Medical (India) 1968. Board eligible — AP and CP. Group, partnership, hospital, research, or teaching. Available July 1975.

**PEDIATRICS** — Ferdous Kazemi, M.D., Regency Village, Apt 13G, Route 22, North Plainfield 07060. Teheran 1969. Board eligible. Partnership, full or part-time hospital, pediatric ambulatory. Available July 1975.

**PLASTIC SURGERY** — C. U. Nawada, M.D., 120 Washington St., East Orange 07017, Apt. 38. India 1965. Board certified. Partnership. Available July 1975.

**PSYCHIATRY** — Pawan Chadha, M.D., 118 East Oakland Street, Monticello, Arkansas 71655. Delhi (India) 1969. Group, partnership, solo, or community mental health center. Available July 1975.

**RADIOLOGY** — Ramesh D. Doshi, M.D., 10 Copeland St., Apt. #305, Quincy, Massachusetts 02169. M.P. Shah Medical College (India) 1966. Associate, group, or hospital. Available July 1, 1975.

**SURGERY** — Il Bong Kim, M.D., 3414 West Waukegan Road, McHenry, Illinois 60050. Catholic Medical 1967. Board eligible. Solo, group, partnership, will include general practice. Available July 1975.

Tik Tjong Liem, M.D., 2931 Northview Blvd., Youngstown, Ohio 44504. National (Taiwan) 1968. Board eligible. Group or solo. Available July 1975.

Luis E. Reyes, M.D., 77-17 171 Street, Flushing, New York 11366. Univ. of Santo Tomas, Manila 1967. Board eligible. Available.

Hossein Faiz, M.D., Medical College of Pennsylvania Hospital, 3300 Henry Avenue, Philadelphia 19129. Teheran 1967. Subspecialty, vascular surgery. Board eligible. Solo, association, or group. Available July 1975.

**UROLOGY** — Ramses I. Faragalla, M.D., 6517 Landover Road, Cheverly, Maryland 20785. Alexandria (Egypt) 1959. Board eligible. Group, partnership, solo. Available July 1975.

David Wong, M.D., 291 Walton Drive, Snyder, New York 14226. Kaohsiung Medical 1960. Board eligible. Solo, group, or partnership. Available.



## Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center of the New Jersey Regional Medical Program and the Brookdale Inter-regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, conjointly compile the information contained in this column each month. The New Jersey component is located at the Valley Hospital in Ridgewood. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Following are questions and answers handled by the Center recently.

1. I understand that the treatment of herpes simplex that utilizes neutral red or proflavine may be dangerous, please provide information concerning this.

Some question has arisen about the cancer-producing potential of the photodynamic therapy for herpetic lesions, the "dye-light" procedure. Recurrent herpes simplex is an annoying source of discomfort and cosmetic embarrassment for 1 to 2 percent of our population. The herpes simplex virus can produce acute primary vesicular lesions of the skin and mucous membranes. Two major subtypes exist: the oral type affects the oral cavity, eye, and skin; and the genital type is associated with lesions of the genitalia and cervical carcinoma.<sup>1</sup>

The "dye-light" procedure, a procedure gaining widespread acceptance, is based on photodynamic inactivation of the virus. The procedure involves rupturing early vesicular lesions, application of dye (a solution of neutral red or

proflavine sulfate), and exposure of the treated lesions to visible light, usually at a distance of six inches for 15 minutes. This therapy has been reported to be successful in reducing the duration and symptoms to both types of viruses.<sup>2,3</sup>

There is some evidence that the photoinactivation sharply reduces the infectivity of both types of herpes simplex virus (presumably the reason that clinical infections clear up). The non-infective and probably defective virus is still able to "transform" normal mammalian cells into cells with new heritable characteristics and loss of contact inhibition. These are properties often associated with malignant potential.<sup>4,5</sup>

In conclusion, since it has been suggested that photodynamic therapy for herpes simplex may unmask the oncogenic potential of the virus and treated cells may possibly become malignant through photodynamic mutagenesis, further research is needed to resolve the safety of this procedure.

### References

1. Sprechers-Goldberger S, et al: Herpesvirus type 2 infection and carcinoma of the cervix. *Lancet* 2:266-270, 1970.
2. Amstey M: Therapy for genital herpesvirus infection. *Drug Therapy* 50-57, 1974.
3. Felber T D: Photodynamic inactivation of herpes simplex. *JAMA* 223:289-292, 1973.
4. Rapp F, et al: Transformation of mammalian cells by DNA-containing viruses following photodynamic activation. *Virology* 55:339-346, 1973.
5. Anon: Oncogenic potential of new herpes simplex therapy. *FDA Drug Bulletin* 5:3 (Jan-Mar) 1975.

2. Please provide information concerning the use of clomiphene to treat male infertility.

Clomiphene citrate (Clomid®) is currently indicated to induce ovulation in appropriately selected anovulatory women desiring pregnancy. In patients with normal pituitary function, it apparently causes the release of gonadotropins, stimulates follicular stimulating hormone (FSH) and luteinizing hormone (LH), which results in ovulation, and subsequent development and function of the corpus luteum.<sup>1</sup>

Schellen and Beek<sup>2</sup> treated 101 male patients, 17 with azoospermia and 84 with oligospermia, with clomiphene at a dosage of 50 mg per day for 40, 60, or 90 days. For patients with azoospermia, no positive response in sperm production was observed. For some patients with oligospermia, good results were obtained. When improvement in the semen did occur, it occurred approximately 60 days after the beginning of therapy. (The time taken for sperm to mature is 69 to 70 days.)<sup>3</sup> For the patients who were treated for 60 and 90 days, the improvement was usually noted shortly after the end of treatment. In 19 patients, the improvement in the semen was followed by a pregnancy, 18 occurred within a period of six months after discontinuing the clomiphene therapy.

Palti<sup>4</sup> treated 69 male infertile patients with clomiphene. Four schedules were given: 12.5, 25, 50, and 100 mg per day. Duration of treatment was 20, 30, and 60 days, on every dosage. Five wives conceived. It seemed that the best improvement was on the schedule of 50 mg per day for 60 days as a total of 47 percent of the patients on this schedule had



improvement in their sperm concentration and 45 percent in their sperm motility.

Meinhard, *et al.*<sup>5</sup> treated 11 male oligospermic patients with 100 mg of clomiphene daily. In 10 of the 11 patients, there were no significant changes in either sperm concentration or motility. The count became normal in one patient, but he did not father a child.

In conclusion, clomiphene at a dosage of 50 mg daily for 60 to 90 days may be effective in increasing spermatogenesis in some infertile men with low sperm counts.

## References

1. Anon: American Hospital Formulary Service, American Society of Hospital Pharmacists, Washington, D. C. 92:00, 1973.
2. Schellen T and Beek J: The use of clomiphene treatment for male sterility. *Fertil Steril* 25:407-410, 1973.
3. Anon: Drugs in infertility. *Br Med J* 4:167-170, 1972.
4. Palti A: Clomiphene therapy in defective spermatogenesis. *Fertil Steril* 21:838-843, 1970.
5. Meinhard E, *et al*: Testicular biopsy in evaluation of male infertility. *Br Med J* 3:577-581, 1973.
3. Please provide information concerning the use of levodopa (L-dopa) in the treatment of hepatic coma.

Although the exact pathophysiology of hepatic coma is unknown, recent clinical evidences have shown levodopa, the natural precursor of dopamine, to play a beneficial role in the treatment of some patients with hepatic coma. This suggests that a defect of dopaminergic neurotransmission is responsible for some of the manifestations of hepatic failure.

Parkes, *et al.*<sup>1</sup> conducted a study in five patients with acute hepatic failure in coma or stupor utilizing various drugs affecting neurotransmission. Levodopa, at a dosage of 5 gm given in 100 ml of water by gastric tube in two patients and by enema in one patient, produced in these three patients a striking though temporary improvement in the level of consciousness together with a striking improvement in the previously abnormal electroencephalographic (EEG) recordings. In the other two patients not given levodopa, neither 5-hydroxytryptophan (one patient) nor epinephrine, norepinephrine, atropine, or edrophonium (one patient) affected consciousness or EEG dominant frequency.

Fischer and James<sup>2</sup> treated four patients in hepatic coma with cardiovascular abnormalities including high cardiac output, low peripheral resistance, low urinary sodium with diminished urine volume, and a picture suggestive of hepatorenal syndrome with levodopa. Gradual increase in the amount of levodopa administered until 50 mg/kg was given by gastric tube in divided doses per twenty hours resulted in diminished cardiac output, correction of cardiovascular abnormalities, and awakening from hepatic coma.

Lunzer, *et al.*<sup>3</sup> treated six patients with chronic hepatic encephalopathy with levodopa. Three patients showed a significant improvement. One patient was probably improved while the remaining two patients failed to show any benefit. Serial electroencephalography did not demonstrate

significant changes. Treatment with levodopa was associated with an improvement in "speed-based" tasks as assessed by computerized psychometry. A significant rise in cerebral oxygen consumption was found during levodopa therapy. Gastrointestinal side effects were dose limiting. The authors concluded that a therapeutic trial of levodopa in patients with chronic hepatic encephalopathy is indicated when the response to conventional therapy has been poor.

Fischer and Baldessarini<sup>4</sup> described a case of a patient with hepatic coma resulting from Laennec's cirrhosis treated with levodopa, 250 milligrams administered by gastric tube, when the patient seemed to be dying. One hour later the patient became alert and began to fight the respirator. Weaning from the respirator was started, and over the next two days the patient's mental status improved further. The patient could speak coherently and could breathe independently for periods up to three hours. BUN dropped from 80 to 30 mg per 100 ml over the next 48 hours. The serum-bilirubin rose to a stable value of 25 mg per 100 ml, indicating continuing hepatocellular failure. With gradually increasing doses of levodopa to 2.25 gm a day, cardiac output diminished and left ventricular failure cleared, and the patient no longer required respiratory assistance. The patient maintained this level of improved function until levodopa was no longer necessary. The patient died of sepsis two months later.

In conclusion, the literature suggests that levodopa may exert beneficial effects on the mental and circulatory status of patients in hepatic failure. Further clinical trials are necessary to confirm this finding.

## References

1. Parkes J D, *et al*: Levodopa in hepatic coma. *Lancet* 1341-1343, 1970.
2. Fischer J E and James J H: Treatment of hepatic coma and hepatorenal syndrome. *Am J Surg* 123:222-229, 1972.
3. Lunzer M, *et al*: Treatment of chronic hepatic encephalopathy with levodopa. *Gut* 15:555-561, 1974.
4. Fischer J E and Baldessarini R J: False neurotransmitters and hepatic failure. *Lancet* 75-79, 1971.

## Physicians' Relief Fund

The Physicians' Relief Fund of The Medical Society of New Jersey is available to members of MSNJ in need of financial assistance in time of emergency or catastrophe. Applications are made through your county medical society—write or call the Secretary or the Executive Secretary for information.

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# LETTERS TO THE JOURNAL

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## Quality Care Threatened by PL 93-641

April 4, 1975

Dear Doctor Krosnick:

The following is the body of a letter sent to the Honorable Brendan Byrne, Governor of New Jersey, under date of March 31. It may prove interesting to your readers.

"The impact of the national health act of 1974, Public Law 93-641, is of extreme concern to those of us who are interested in the provision of quality medical care in New Jersey, as I am sure you are. The following basic facts directly concern this problem.

"1. Last year 201 citizens of this state entered the medical schools of New Jersey.

"2. Three hundred and thirty citizens of this state entered medical schools outside of the state of New Jersey, many of whom will never return to New Jersey.

"3. Between 750 and 1,000 New Jersey residents entered medical schools outside of the United States.

"4. There were 830 applicants to The Medical Society of New Jersey of whom 750 were estimated to be foreign medical graduates. Statistics in these areas are complicated by the fact that there is an associate membership in the State Medical Society in which foreign medical graduates who are still in training programs may qualify for membership in the State Society without being in active practice or having a license. On the other hand, the Board of Medical Examiners has no accurate knowledge of how many licensed doctors in New Jersey actually practice medicine here. Many doctors maintain licenses in several states although they may practice very little or none in some of the states in which they hold licenses.

"There are 1,111 residency training programs approved in the State of New Jersey at the present time. Last year 93 percent of these were filled. Of those filled, 77 percent were filled by foreign medical graduates.

"Public Law 93-641 clearly recommends that where possible the areas designated should coincide with PSRO areas. PSRO Region 8 comprises the southern 8 counties of New Jersey.

"While there are certain potential values in Salem County and possibly Cumberland using regional centers in Wilmington, Cape May County would be much better with either Camden or Atlantic City than Wilmington, in terms of transportation. The concept that Camden, Burlington, and Gloucester should fall under the Philadelphia Urban Regional Program overlooks the transportation cost and difficulties involved as well as the almost complete lack of primary care involved in the medical schools. Under Public Law 93-641, within one and a half years all of the health facilities within a region must be surveyed and evaluated. The equitable rearrangement of extensive programs such as open heart surgery, renal transplants, and others, among the five medical schools in Philadelphia presents fascinating prospects of confusion and ingenuity in human inter-relations. My main concern, however, is that should the eight southern counties in New Jersey be broken up and brought under the out-of-state agencies, where obviously the majority of the 50¢ capitation funds will be concentrated as well as the major power structure, the hope of maintaining quality medical services within the southern area of the state, as well as the hope of increasing the educational opportunities either for our own citizens who are graduates of foreign medical schools on a postgraduate level or for our citizens who wish to attend a southern division of the College of Medicine and Dentistry in New Jersey, would seem to me quite remote.

"It is my feeling as a practicing surgeon as well as a Director of Medical Education that by far the best prospect for increasing the quality of medical care and the number of New Jersey residents who are able to be trained and will remain to practice in New Jersey lies with main-

taining control of the area within the borders of our state, and I strongly urge that in your role, as built into the law, in deciding with the governors of neighboring states regarding area designations, that the future of undergraduate and graduate medical training in New Jersey will receive the concern that you conceive to be in the best interest of the citizens of this state."

(signed) Sherman Garrison, M.D.

*Editor's Note:* Additional information since this letter was written shows that of 790 graduates of medical schools who became members of MSNJ between May 1, 1974 and February 28, 1975, 359 were graduates of foreign medical schools.

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### Some Responses to a Call for Annual Meeting Support

April 15, 1975

Dear Doctor Krosnick:

I take considerable umbrage on your recent sanctimonious editorial in the April issue of *The Journal* ("If You Don't Play, Don't Complain," 72:279). I have for years been a member of the Alcoholism Committee of the State Medical Society, I serve on the State Advisory Committee on Alcoholism to the State Department of Health, I have been active on committees in my local mental health association, and currently am serving in the many meetings required of the Chief of the Department of Psychiatry of The Cooper Hospital, here in Camden. I am not inactive. I do, however, deeply resent someone, even verbally, disenfranchising me because I don't attend monthly medical society meetings which are held on an evening when I customarily see patients.

Even if I were not busy, the multitude of community, civic and religious organizations and demands on our time in this society are so complex that it is fortunate that everybody does not consider activity in the medical society as being the most important. Rather than rejecting complaints, you should be thankful that any of us are interested enough to voice our desires, and if you really want to serve American Medicine, you would be trying to hear what the practicing

physician is concerned with, what his problems are, even if he does not come regularly to Medical Society meetings. That is, you would be encouraging more communications, rather than ridiculing it.

(signed) George A. Rogers, M.D.

April 21, 1975

Dear Dr. Krosnick:

I noted with interest your editorial in the issue of our medical society *Journal*, dated April 1975. The initials following the editorial on page 279 were A.K. I would assume that these are probably your initials.

I would wholeheartedly agree with your initial statements that the practice of medicine in New Jersey and America is not a game. I would also agree with the fact that there are many physicians who give unstintingly of their time, talent and effort in medical society affairs and who have received little else in rebuttal except dissent from the membership.

I speak from a background of having almost one quarter of a century of time involved in medical society affairs at one level or other. It is only this year after being completely disheartened that I have withdrawn from active participation in them. I disagree heartily with the statements that you make further in your editorial. I resent very strongly the implication that people who dissent with your opinions or the opinions of the state society are practically in the lunatic fringe. These people are not necessarily insurgents or rebels. It is interesting to note that only during the past year to two years there has been a more responsive approach to some of the socioeconomic problems that American medicine faces. I can only believe that this more aggressive and favorable response on the part of the AMA and the MSNJ has been stimulated to a good degree by the membership who have dissented and who have criticized. The strong influence of the third party in our MSNJ affairs has disheartened many members. Many have the feeling that the medical society policy is set more and more not by the individual member's desires nor what is entirely good for them but more by



the influence of the third parties who have such strong influence in the policy-making levels of our society.

Numerous attempts have been made to curb in some way the influence of the third parties in our society affairs, but apparently the weight and influence of these parties prevented this each time. This is one of the few reasons, among others, that the general membership at times have become very disheartened and critical of the policies of the society. These men, indeed, "play the game." They are dues payers, and they have the right to complain. If the leaders of our society are not responsive to their complaints and are unduly disturbed by the criticism of the general membership, then certainly it would seem that they do not belong in a position of leadership. Until a society and its leaders realize that the society exists for its membership and not as a sounding board or policy-making organization for third parties, the membership will certainly have lack of confidence in same. It is for these reasons that they turn to other approaches, such as medical guilds and unions.

The action of the house staffs of the New York City hospitals several weeks ago outside the realm of organized medicine would certainly lead one to believe that we have been somewhat derelict in protecting the interest of these house staff members in years past. Both you and I have lived through years past with the 110 and 120-hour work week. Our societies were certainly not responsive to our needs at the time, and it was only through considered action of the individual physicians themselves in these positions at a recent date that some changes were made.

We are living in a new era at present time. The younger physicians of the era are certainly not those of the idealistic era in which you and I were trained, and these younger men will certainly warrant more answers than have been provided by our medical societies in the past.

I would trust that you would review some of the statements which you made in your editorial. I do think that some of these statements were to some degree offensive to the membership.

I would also invite you to publish this in the next issue of *The Journal* as a response to your editorial.

(signed) John J. Reilly, M.D.

April 24, 1975

Dear Dr. Krosnick:

Re: "If You Don't Play, Don't Complain!"  
Vol. 72, No. 4, April 1975.

Regarding your editorial in the above-mentioned issue, the ball is now in *your* court. I want to play the game.

I feel it is our duty as Americans to fight for what we believe in, regardless of the resistance or ostracism we encounter. I don't know the rules, either to follow them, question them, or try to change them.

Since a good bit of my time is spent in psychiatry, I trust you realize that I cannot spend all the time playing the game in New Jersey when there are other fish to fry (or games to play). However, I will do my best.

Looking forward to hearing from you, I remain.

(signed) Josef Kolenski, M.D.

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More on Smoking

April 11, 1975

Dear Doctor Krosnick:

Your editorial on "Smoking: Is Our House in Order?" is very timely and appreciated.

Hackettstown Hospital carries on a number of programs for the community to help people stop smoking. It has limited smoking in the hospital to patients who feel they must smoke. These smokers are segregated from non-smokers, but

like all innovations, there has been some resistance. Your editorial will be most helpful.

I am using your editorial in a letter to our Senator regarding Bill HR 4296, 1975 which proposes increasing subsidies to tobacco farmers.

(signed) Ronald A. Bettel, M.D.

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## Civil Service and Physician Re-examination

April 20, 1975

Dear Doctor Krosnick:

The following comments are respectfully submitted for consideration regarding examinations to determine the ability of licensed physicians to continue their practices. Prior to such comments I point out that prior to becoming associated with The Medical Society of New Jersey and the State Department of Health, I served for many years as the Principal Personnel Technician for the Department of Civil Service of this State.

No examination has ever provided a circumstantial guarantee that the person who passed it would or could perform proficiently and in accordance with professional standards. An examination is useful only to screen out the most incompetent. It cannot predict, of those who pass, a numerical listing of their proficiency, reliability, and job performance. In the State service it is merely an administrative tool providing a brake against the inroad of incompetents and a grading of eligibles for appointment. An examination cannot predict, of those who pass, a numerical listing of their proficiency, reliability, and job performance. When, as in the case of Civil Service examinations, numerical listings of eligibles are made to the third decimal point, I maintain that a distinction is made without a difference!

There are many fields of applied science having no variables. Such is not the case in the practice of medicine. Although not a member of that profession, it appears to me that the practice of medicine is a combination of art and science.

Such a combination is not subject to an objective examination. The Department of Civil Service recognized that fact a long time ago. It is for this reason that examinations are not conducted by the Department for position vacancies for physicians in the state service — such positions are appointive.

Pure logic demands the conclusion, and personnel experts will admit, that the best examination of a person's integrity and ability is the "on the job" test. In the case of State positions time will not permit of such an examination, hence the written and/or oral examination. You physicians are the best judge of the abilities of your confreres. If there is to be an evaluation of their abilities you physicians should do it. A State agency, even if staffed by King Solomon and he was not politically inclined, could not do it. Only physicians practicing in the community with the physician to be evaluated, who have access to his case records, would have the evidence necessary to evaluate a physician's "on the job" performance.

A licensed physician should not be examined or judged on the basis of what some agency or person thinks he should be able to do but rather on the basis of what he has done. In the last analysis the behavior of a member of a profession is dependent upon his integrity. No examination will reveal that vital fact but his actions will. Although licensed to practice I have never accepted cases in the fields of maritime law, copyrights, matrimony, torts, and many others because I don't consider myself qualified to do competent work for a client in those fields. Respect for the practice of medicine depends upon physicians not accepting responsibilities for which they do not feel themselves qualified. Examinations will not prevent someone who passed an examination from assuming responsibilities he is not qualified to perform. His confreres will know when he has overstepped his abilities. They, and they alone, should evaluate him and, if needs be, chasten him. I respectfully submit that such control of a physician as may develop in this regard might well be effected through the P.S.R.O. or similarly controlled physician-staffed agency whose membership was elected by physicians.

(signed) E. Powers Mincher, LL.B.

## The Foundation

April 28, 1975

Dear Sir:

The season has come again for the annual payment of the "one-time" contribution to that sacred cow known as the New Jersey Foundation for Health Care Evaluation. I recommend to all members of the Society that they peruse the "Reports from the Foundation" in the February, March, and April issues of *The Journal*, but especially do I recommend it to those members of the 1974 House of Delegates who voted for the latest exaction from New Jersey physicians to support this Foundation. Their perusal should be directed toward an appraisal of whether they have received their \$150,000 worth from this Foundation. Their perusal might also extend to reading, between the first and second lines of the report (which say that the next round of funding of PRROs by HEW is being anticipated), that the next round of funding of the Foundation by the physicians of New Jersey is also being anticipated by the Foundation.

Since this letter will not be published until after the 1975 Annual Meeting, it is my earnest hope, in the event the Foundation has the gall to ask for another "one-time annual" exaction from the Society's members, that the House of Delegates, disregarding all blandishments and subtle propaganda, will have firmly refused to

put any more money, either as a "special assessment" or in the budget, into this sink-hole.

As was pointed out, apparently in vain, at the 1974 House of Delegates, this Foundation *does nothing and fulfills no function* that could not be done by a council or committee of The Medical Society of New Jersey; no function of this Foundation is prohibited by the "Bennett Amendment" to the Medical Society. Instead of New Jersey physicians paying money to this Foundation to carry out such function as it does and in the process using federal funds, this Society could be carrying out those functions *and* using federal funds.

If the 1975 House of Delegates fails to reject this totally unwarranted exaction on members, if it is solicited, then members should use such failure as a standard for selection of future Delegates. This Society's prospects as an efficient representative of the interests of its members and their patients is indeed dim if its House of Delegates cannot recognize the arm-cum-mouthpiece of HEW masquerading as "our Foundation" and at least refrain from directly subsidizing it out of members' pockets.

As was well paraphrased at the 1973 House of Delegates, "Physicians propose, but HEW disposes." HEW insists on calling the tune, so let HEW pay all of the Pied Pipers.

(signed) Philip J. G. Quigley, M.D.

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## Personal Items

### ACS Bronze Medal

Raymond A. McCormack, M.D.

Raymond A. McCormack, M.D., of Trenton, a member of the Mercer County Component Medical Society, was awarded the American Cancer Society's Bronze Medal, the Society's highest award for service within a state. Dr. McCormack is a surgeon on the staff of The Mercer Medical Center in Trenton. In 1967, he received the ACS New Jersey Division's "Physician-of-the-Year" Award.

### New Jersey AFP President

Seymour Taffet, M.D.

Dr. Seymour Taffet, a member of the Essex County Medical Society, from Bloomfield, was elected President of the New Jersey Chapter of the Academy of Family Physicians. A graduate of the University of Michigan Medical School, Dr. Taffet is a past-director of the Department of Family Practice at Mountainside Hospital in Montclair and past-president of the Essex County Chapter of the organization he now heads.



# MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

## June

- 10 **Hypertension**  
8 p.m. — Shore Memorial Hospital, Somers Point  
(Sponsored by Shore Memorial Hospital)
- 10 **Thyroid Diseases**  
7 p.m. — Point Pleasant Hospital  
(Sponsored by Academy of Medicine)
- 10 **Difficult Diabetic Patient**  
8 p.m. — Paul Kimball Hospital, Lakewood  
(Sponsored by Academy of Medicine)
- 11 **Angina Pectoris**  
2 p.m. — Christ Hospital, Jersey City  
(Sponsored by Christ Hospital and Academy of Medicine)
- 11 **Monthly Neuroradiology Meeting**  
7:45-10:15 p.m. — Morristown Memorial Hospital, Morristown  
(Sponsored by Radiological Society of New Jersey and the Academy of Medicine)
- 11 **Autogenic Training in Psychotherapy**
- 25 **Biofeedback**  
3:4-30 p.m. — Fair Oaks Hospital, Summit  
(Sponsored by Fair Oaks Hospital and Academy of Medicine)
- 11 **House Staff Symposium**
- 18 **Clinical Pathology Conference**  
9:30 a.m. — Bergen Pines County Hospital, Paramus  
(Sponsored by Bergen Pines County Hospital and Academy of Medicine)
- 11 **Optical Aids**  
8-9 p.m. — St. Barnabas Medical Center, Livingston  
(Sponsored by St. Barnabas Medical Center and Academy of Medicine)
- 11 **Hereditary Macular Degenerations**  
7:15 p.m. — United Hospitals Medical Center, Newark  
(Sponsored by Associated Eye Residencies of New Jersey and Academy of Medicine)
- 11 **Acute Renal Failure**  
11 a.m. — Mercer Medical Center, Trenton  
(Sponsored by NJRMP, Nephrology Society of New Jersey, and Academy of Medicine)
- 12 **Acute Renal Failure**  
1 p.m. — VA Hospital, Lyons  
(Sponsored by NJRMP, Nephrology Society of New Jersey, and Academy of Medicine)
- 12 **Auto-Hemolytic Disease**  
12 noon — St. Mary's Hospital, Orange  
(Sponsored by St. Mary's Hospital and Academy of Medicine)
- 13 **Antihypertensive Agents**  
2 p.m. — East Orange VA Hospital  
(Sponsored by East Orange VA Hospital, New Jersey RMP, and City of Newark)
- 14 **Basic Science for Surgeons**
- 21 10 a.m.-12 noon — Martland Hospital, Newark
- 28 (Sponsored by CMDNJ, New Jersey Medical School, and Academy of Medicine)
- 17 **Acute Renal Failure**  
11:30 a.m. — St. Mary's Hospital, Orange  
(Sponsored by Academy of Medicine)
- 17 **Local Problems in Cancer**  
10 a.m. — St. Mary's Hospital, Hoboken  
(Sponsored by St. Mary's Hospital and Academy of Medicine)
- 18 **Pediatric Orthopedic Symposium**  
9 a.m. — 3:30 p.m. — Hunterdon State School, Clinton  
(Sponsored by Hunterdon State School and Academy of Medicine)
- 18 **Joint Monthly Sessions of Clinical Interest**  
7-9 p.m. — VA Hospital, East Orange  
(Sponsored by CMDNJ, New Jersey Medical School, East Orange VA Hospital, and Academy of Medicine)
- 19 **Flexible Fiberoptic Bronchoscopy**  
4 p.m. — Rutgers Medical School, Piscataway  
(Sponsored by American Lung Association and Academy of Medicine)
- 21-22 **Establishing Yourself in Medical Practice**  
Overlook Hospital, Summit  
(Sponsored by Overlook Hospital, Summit)
- 23 **Hemorrhoidectomy Ligation and Cryosurgery**  
7 p.m. — Englewood Men's Club, Englewood  
(Sponsored by Englewood Surgical Association and Academy of Medicine)
- 24 **Hepatitis, Acute and Chronic**  
11 a.m. — Perth Amboy General Hospital, Perth Amboy  
(Sponsored by Academy of Medicine)
- 24 **Thyroid Diseases**  
8 p.m. — Warren Hospital, Phillipsburg  
(Sponsored by Academy of Medicine)
- 25 **Air Pollution**  
9 a.m. — Barnert Memorial Hospital Center, Paterson  
(Sponsored by Barnert Memorial Hospital)
- 27 **Endotoxic Shock**  
9 a.m. — St. Elizabeth Hospital, Elizabeth  
(Sponsored by Academy of Medicine)

**28 Nephro-Pathology Conference**

9:30 a.m. — Holy Name Hospital, Teaneck  
(Sponsored by Holy Name Hospital and Academy of Medicine)

**July**

**3 Psychiatric Case Conferences**

7:30 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

**8 Dialysis Unit in Community Hospital**

8 p.m. — Shore Memorial Hospital, Somers Point  
(Sponsored by Shore Memorial Hospital and Academy of Medicine)

**16 Hypertension**

1 p.m. — Trenton Psychiatric Hospital  
(Sponsored by NJRMP, Nephrology Society of New Jersey and Academy of Medicine)

**18 Hypertension**

12 noon — Freehold Area Hospital, Freehold  
(Sponsored by NJRMP, Nephrology Society of New Jersey and Academy of Medicine)

**Aug**

**1 Dermatological Manifestations of Internal Disease**

12 noon — St. Mary's Hospital, Orange  
(Sponsored by St. Mary's Hospital and Academy of Medicine)

**5 Psychiatric Case Conferences**

7:30 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

**Sept.**

**2 Psychiatric Case Conferences**

7:30 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

**30 Management of Difficult Psychiatric Patient**

2 p.m. — Trenton Psychiatric Hospital, Trenton  
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

### Definition of Primary Care Physician and Assistant\*

The primary care physician is one whom the patient generally consults directly, and whose practice is characterized by a broad scope of medical services, including the management of acute problems, slowly progressive and chronic illness, preventive and emergency services, and personal and family counseling. It is also recognized that the primary care physician is often the one to whom the patient turns for counseling on personal life situations as well as with his concerns about illness or injury.

It is in the common problems above, that the assistant to the primary care physician should receive basic preparation and skills.

The assistant, therefore, is involved in helping the primary care physician provide a variety of personal health services, including but not limited to:

Receiving patients, obtaining case histories, performing an appropriate physical examination, and presenting meaningful resulting data to the physician;

Performing or assisting in laboratory procedures and related

studies in the practice setting;

Giving injections and immunizations;

Suturing and caring for wounds;

Providing patient counseling services; referring patients to other health care resources;

Responding to emergency situations which arise in the physician's absence within the assistant's range of skills and experience; and

Assisting the employing physician in all settings such as the office, hospitals, extended care facilities, nursing homes, and the patient's home.

The ultimate role of the assistant and his functions vary with his individual capabilities and the specific needs of the employing physician, the practice setting in which he works, and the community in which he lives. The high degree of responsibility an assistant may assume requires that, at the conclusion of his formal education, he possess the knowledge, skills, and abilities necessary to provide those services appropriate to the primary care setting.

\*From the Department of Allied Medical Professions and Services, Division of Medical Education, AMA.

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# ANNOUNCEMENTS

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## Current Topics in Psychiatry

The Fair Oaks Hospital in Summit announces the following programs in the 1974-1975 series on current topics in psychiatry. Dates and topics of subsequent sessions will be announced in future issues of *The Journal*.

June 11 Autogenic Training  
June 25 Biofeedback

Sessions are held from 3 to 4:30 p.m. in the Conference Room at the Hospital (19 Prospect Street). Granville L. Jones, M.D., Director of Research and Education at Fair Oaks, will be moderator and further information is available by writing directly to him.

The programs are co-sponsored by the Academy of Medicine and are accredited for Category I of the AMA Physician's Recognition Award.

## Chest Care Conference

On Thursday, June 19, from 4 to 6 p.m. at the Rutgers Medical School in Piscataway, the Delaware-Raritan Lung Association, in conjunction with the New Jersey Thoracic Society, will sponsor a central New Jersey regional chest conference. Topic is the "Flexible Fiberoptic Bronchoscopy" and the presenter will be Oscar Cunanan, M.D., of the Medical Center at Princeton. The program is acceptable for two hours of AMA Category I accreditation for the Physician's Award. Further information is available from Ms. Linda Hummel, Program Assistant, Professional Education, Delaware-Raritan Lung Association, 29 Emmons Drive, Princeton 08540.

## Seminar on Ovarian Tumors

The New Jersey affiliate of the American College of Obstetricians and Gynecologists is sponsoring a seminar on ovarian tumors on Wednesday, June 25, 1975, at the Mercer Medical Center in Trenton — 5th floor auditorium — from 9 a.m. to noon. Registration fee is \$5. The following program has been arranged:

### *Classification and Pathology of Ovarian Tumors*

Warren R. Lange, M.D., Professor of Obstetrics and Gynecology and Assistant Professor of Pathology, Jefferson Medical College, Thomas Jefferson University, Philadelphia

### *Endocrinology of Ovarian Tumors*

Abraham Rakoff, M.D., Professor of Endocrinology and Gynecology, Jefferson Medical College, Thomas Jefferson University, Philadelphia

### *Treatment of Ovarian Tumors*

James L. Breen, M.D., Director, Department of Obstetrics and Gynecology, St. Barnabas Medical Center, Livingston

The program has been approved for three (3) credit-hours in Category I of the AMA Physicians' Recognition Award and MSNJ's Continuing Medical Education Program. Collation will be served before the session convenes. For additional information, please communicate with Ralph W. Ellis, M.D., 333 West State Street, Trenton 08618.

## CME Programs at Bridgeton Hospital

The Bridgeton Hospital announces the following continuing medical education courses to be held at the hospital at 6:30 p.m. on the Wednesdays and Thursdays indicated:

Sept. 11	Endoscopy and Acute Problems in Gastroenterology
Sept. 24	Congestive Heart Failure and Hypertension
Oct. 9	Acute and Chronic Brain Disease
Oct. 29	Acute Psychiatric Problems
Nov. 13	Techniques and Capabilities of Radiology Diagnosis
Nov. 26	Pelvic Disease — Office Gynecology
Dec. 11	Venereal Diseases

For additional information, please communicate with Sherman Garrison, M.D., Director of Medical Education, The Bridgeton Hospital, Bridgeton 08302.

## Survey of Gynecology and Obstetrics

From October 6 through 10, 1975, the St. Barnabas Medical Center in Livingston will offer a graduate course for obstetricians and gynecologists on the clinical correlations of various histopathologic entities of the female genital tract as encountered in their specialties. Gross and microscopic material will be studied



and related to the clinical picture of various diseases, including diagnosis and therapy.

The course is approved for 40 credit hours in category I of the AMA Physician's Recognition Award. Enrollment is limited and is on a first-come basis. Tuition is \$375 and covers the cost of instruction, booklets, and 100 selected slides with descriptions. A \$25 deposit is required at the time of registration; the balance is payable on or before October 1st. A limited number of accommodations have been set aside at two nearby motels. For information, please communicate with James L. Breen, M.D., Research Fund, Department of Obstetrics and Gynecology, St. Barnabas Medical Center, Livingston, New Jersey 07039.

### **Camp Nejeda**

Camp Nejeda, located in Stillwater, New Jersey's only camp for children with diabetes, is preparing for its 18th season. Children from 5 to 15 are accepted for two or three-week periods or one or two-week periods from June 29th through August 23rd. Over the years, such a camping program has proved its value by the results observed with these children. They acquire a better understanding of their diabetes, are more confident and secure in their self-management, and usually go home with a new skill or experience. The medical department is under the direct supervision of the Camp Nejeda Medical Committee and is cosponsored by the New Jersey Affiliate of the American Diabetes Association. Inquiries and requests for applications can be made to: Mrs. Engel Levison, Camp Nejeda, 153 Roseville Avenue, Newark 07107.

### **Endocrine-Ophthalmology Program**

The Saint Barnabas Medical Center in Livingston has developed an endocrine-ophthalmology program, said to be the first of its kind in our state. Utilizing a multidisciplinary approach, the E-O center will evaluate adverse hormonal effects on the eye through special study procedures. Inquiries and/or patients should be directed to Emanuel Rosen, M.D., The Endocrine-Ophthalmology Clinic, Saint Barnabas Medical Center, Livingston, New Jersey 07039.

### **Family Practice Recertification**

The American Board of Family Practice recently mailed to diplomates certified in 1970 a package of information containing requirements and procedures for the 1976 recertification examination.

These diplomates will be the first ABFP group to undergo mandatory recertification, the first such group in American medicine. Required recertification, to which candidates agree upon becoming certified, was written into the bylaws of the new specialty of family practice when it was founded in 1969. This class of some 1,700 diplomates must (1) take a half-day written examination October 29, 1976 and (2) review 20 patient charts and submit answers to a set of questions about each prior to the exam. The written examination will account for a major portion of the diplomate's score. The charge for the process will be \$150, as opposed to \$300 for the regular certification procedure.

Two eligibility requirements apply to all diplomates seeking recertification: (1) A written statement, which will be corroborated, that the candidate holds unrestricted licensure(s) and (2) proof that the candidate has completed 300 hours of acceptable continuing education in the last six years.

A small sample of the candidates, randomly selected, will be asked to submit photocopies of the charts from which they completed their questionnaires. These copies, from which the applicant has removed the patient's name to assure anonymity, will be reviewed to determine the validity of the questionnaire procedure.

Applicants will be notified of their eligibility to sit for the cognitive examination well in advance of October 29, 1976. The examination will be offered at five test sites.

### **Committee on Philosophy and Medicine**

The American Philosophical Association has established a Committee on Philosophy and Medicine to develop programs for meetings of the American Philosophical Association. In addition, the Committee will distribute a newsletter including bibliographical and

pedagogical information, lists of persons actively interested in philosophy and medicine, announcements of conferences, and other materials. Persons wishing to be on the Committee's mailing list should write providing the following information: Name, address, institutional affiliation, professional field, primary interests in philosophy and medicine (e.g., ethical issues in clinical medicine, epistemology of medicine, and so on), and any relevant teaching experience or plans (e.g., un-

dergraduate course in medical ethics, lectures in nursing school). Enclose \$2 to cover mailing costs. The Committee comprises H. Tristram Engelhardt, Jr. (University of Texas — Galveston), Holly Goldman (Michigan), Samuel Gorovitz (Maryland), John Ladd (Brown), Chairman, David Mayo (Minnesota), and William Ruddick (NYU). Write to: Professor John Ladd, Committee on Philosophy and Medicine, Department of Philosophy, Brown University, Providence, Rhode Island 02912.

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## OBITUARIES

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### Dr. Jerome S. Eisemann

Jerome S. Eisemann, M.D., a member of the Passaic County Medical Society, died tragically in an automobile accident on April 20, 1975. Born in 1914, Dr. Eisemann was a graduate of Hahnemann Medical College, class of 1937 and, upon termination of his service in the Medical Department of the U.S. Army in 1944, practiced general medicine, with special interest in otolaryngology, in Butler. Prior to his military duty, he had practiced briefly in Salem County. Dr. Eisemann was on the attending staff at the Chilton Memorial Hospital in Pompton Plains.

### Dr. Walter F. Giegerich

Word has just been received of the death on January 11, 1975 of Walter F. Giegerich, M.D., a member of our Middlesex County Medical Society. Dr. Giegerich spent most of his professional life engaged in general surgical practice in Iowa and Nebraska, coming to New Jersey as an emergency room physician at the Perth Amboy General Hospital in 1968. Born in 1911, he received his M.D. degree from the Medical College of Creighton University in 1939 and took graduate work at Walter Reed Hospital in Washington, D.C. and at the University of Nebraska. He was a member of the American College of Gastroenterology, the American Society of Abdominal Surgery, and

the American Society of Clinical Hypnosis, and during World War II had served for five years with the Medical Department of the U.S. Army.

### Dr. Russel B. Grant

The Director of the Department of Surgery at the Hackensack Hospital, Russel B. Grant, M.D., died on April 4, 1975. Dr. Grant was graduated from the University of Minnesota College of Medicine in 1937 and took graduate work in surgery at the Mayo Clinic for three years immediately following internship. He was a diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the prestigious New Jersey Society of Surgeons. In addition to his appointment at the Hackensack Hospital, he was a consulting surgeon at the Veterans Administration Hospital in East Orange. Dr. Grant was 63 years old at the time of his death.

### Dr. Gerhard O. Helden

At the untimely age of 56, the former Director of the Department of Internal Medicine at the Hackensack Hospital, Gerhard O. Helden, M.D., died on April 20, 1975. A graduate of Jefferson Medical College, class of 1943, Dr. Helden did graduate work in hematology and in internal medicine, becoming board certified in the latter in 1954. In addition to his appointment at the Hackensack Hospital, he was on the attending staff at the Bergen Pines County Hospital in Paramus. He was a member of our Bergen County component and a Fellow of the American College of Chest Physicians.

#### **Dr. Benjamin Jaffe**

One of Hudson County's well known ophthalmologists, Benjamin Jaffe, M.D., died on January 16, 1975, at Princeton Hospital. A native of Passaic County, Dr. Jaffe was graduated from the New York University Medical School in 1929 and practiced his specialty in Jersey City for forty-four years before retiring to Jamesburg two years ago. He was a diplomate of the American Board of Ophthalmology and a member of the American Association of Ophthalmologists and Otolaryngologists. Formerly he had been a member of the staff at The Bayonne Hospital and at Christ, Fairmount, and Margaret Hague Hospitals in Jersey City. During World War II he served with the medical department of the U.S. Army. Dr. Jaffe was 71 years old at the time of his death.

#### **Dr. Arnold Korman**

One of Passaic County's senior members, Arnold Korman, M.D., died on April 20, 1975. Born in 1908 and a graduate of the Medical College of Dalhousie University in Nova Scotia, Dr. Korman had practiced general medicine, with special interest in urology, in Paterson for many years. Now retired, he had been on the staff at Barnert Memorial Hospital in Paterson. During World War II he served in the Department of Medicine of the United States Air Force.

#### **Dr. James R. Rampond**

James R. Rampond, M.D., one of Essex County's senior dermatologists, died on March 25, 1975, in East Orange General Hospital after a long illness. Born in 1901, Dr. Rampond was a graduate of Jefferson Medical College, class of 1929, and practiced his specialty in East Orange until illness forced his retirement in 1971. He was a member of the American Association of Dermatology and the New Jersey Dermatological Society.

#### **Dr. Saivel L. Rosenstein**

Saivel L. Rosenstein, M.D., a retired general practitioner from Union, died on April 4, 1975. Born in Russia in 1896 and educated at Saint Vladimir University, where he received his

medical degree in 1919, Dr. Rosenstein came to New Jersey in 1925 and practiced first in Vauxhall. He had staff appointments at Newark Beth Israel and at Irvington General Hospitals.

#### **Dr. Max Schiller**

Word has been received from Florida that Max Schiller, M.D., a retired anesthetist from Middlesex County, died on March 13, 1975. Born in 1907, Dr. Schiller received his medical degree from the University of London in 1937. He was a Fellow of the American College of Anesthesiology, and a member of the American Society of Anesthesiologists. He had been Director of Anesthesiology at Middlesex General Hospital and on the staff at St. Peter's Hospital, both in New Brunswick. Dr. Schiller retired to Hallandale, Florida, in 1973.

#### **Dr. Morse A. Shepard**

At the untimely age of 56, Morse A. Shepard, M.D., died suddenly on February 28 in New York City. A graduate of the Hahnemann Medical College, class of 1943, Dr. Shepard took residencies in internal medicine at Perth Amboy General Hospital and at New York Polyclinic Hospital, and since release from the Medical Department of the Army in 1948, practiced that specialty in Kenilworth (Union County) until his death. He was a member of the attending staffs at Elizabeth General and Alexian Brothers Hospitals in Elizabeth. He had been police surgeon and school physician in his home community during the 1950's. Dr. Shepard was an active member of the American Heart Association.

#### **Dr. Merton H. Stevens**

A former practitioner from East Orange, Merton H. Stevens, M.D., died suddenly on April 15, just after returning from a three-month trip abroad. Though still retaining membership in the Essex County Medical Society, Dr. Stevens had retired to Cape Cod in the 1950's. Born in Philadelphia in 1895 and a graduate of the University of Vermont School of Medicine, class of 1922, he practiced general medicine in the Oranges for many years and had been associated with the Orange Memorial Hospital as attending physician.



# BOOK REVIEWS

**Handbook of Microbiology**, Vol. IV., **Microbial Metabolism, Genetics and Immunology**. A. Laskin and H. Lechevalier. Cleveland, CRC Press, 1974, pp. 904. Illustrated (\$39.95)

This fourth volume of the comprehensive CRC *Handbook of Microbiology* deals with data in the realms of microbial physiology, immunology, and genetics. It is an appropriate sequel to the first three volumes which dealt with microorganisms themselves (Vol. I), their composition (Vol. II) and their products (Vol. III). It is, of course, a reference handbook for those with interests in these several areas of modern microbiology. The section on metabolism and growth contains data on patterns of metabolic regulation and the amino acid requirements of microorganisms. An excellent section on the ability of microbes to transform hydrocarbons, steroids, alkaloids, and antibiotics follows. The second half of the book is concerned with the genetics of microorganisms and contains detailed linkage maps of bacteriophage, bacteria, and certain fungi. The book concludes with a somewhat limited section on immunology containing data on the immunologic classifications of antibiotics, immunocompetent cells, and adjuvants.

This volume, as well as its predecessor, can be recommended as a valuable source of detailed tabular information about microbiological systems.

A. Arthur Gottlieb, M.D.

**Body Map for Diabetics**. The Baptist Hospitals Foundation, Birmingham, Alabama, 1974. (\$2)

This soft-cover publication measures 29 by 45 cm., and contains a dozen "Body Maps" for use by patients with diabetes. It "is designed to provide a convenient but systematic method for selecting insulin injection sites in order to prevent fibrosis or atrophy." A complete Body Map — front and back — is to be used for a month, and the book should last a year (presuming only one injection daily).

Specifically, the anterior thighs (C&D), abdominal wall (E&F) on the front side, and the postero-lateral thighs (C&D), postero-lateral upper arms (A&B), buttocks (G&H), and flanks (I&J) on the back surface are divided into numbered "squares." The patient is advised to record the date in the square when a dose is given; or the nurse is asked to record the site on the chart, e.g., 1/26/75-F20.

The idea of teaching patients to rotate insulin sites is vital, but this system has some drawbacks. Injections are recommended in the inner anterior aspects of the thighs and inner posterior portions of the upper arms, both of which are objectionable. The numbering system is confusing and unpredictable. Furthermore, some areas would require the injection by a second person and the concept overlooks the need for multiple daily injections.

The intrinsic complexity of the "Body Map" would add another dimension to self-management, which most of my adolescent and teen-age diabetic patients would resent. It is difficult enough to get the usual insulin-dependent diabetic to

measure accurately and to inject insulin, to test and record his urine specimens, and to follow a meal plan, without adding another self-management procedure of this type, important though it is.

Perhaps one of a hundred diabetics is compulsive enough to utilize the "Body Map" and even then on a temporary basis. The "Body Map" system, however, is probably good for teaching nurses and for use in *initial* patient and family instruction.

Arthur Krosnick, M.D.

**The Handbook of Adolescence**. M. J. Gersh, M.D. and I. R. Litt, M.D. New York, Dell Publishing, 1974. Pp. 237. (Paperback — \$1.50)

The blurb on the cover of this 237 page paperback describes it as "complete and authoritative . . . the leading medical reference book devoted entirely to the health problems of young people." Actually it is an informative, objective, well and simply written handbook for young people and members of the general reading public interested in them. It covers general adolescent physical and emotional development; physical illnesses such as colitis, epilepsy, hepatitis, and tonsillitis; special problems, including drugs, bed-wetting, and suicide; and a brief chapter on the psychology of adolescence.

Considering the tremendous field to be covered, the authors have selected well. And they educate without preaching or threatening.

As a New Jersey resident, I was surprised and not at all pleased to look at the appendices and see that the only Adolescent Clinic listed for the state is in Morristown, the Planned Parenthood office for the state is in Philadelphia, and the office for information for narcotic addicts is in New York City.

Lillian M. Rosenberg M.D.

**The Rights of Hospital Patients**. G. J. Annas. New York, Avon Books, 1975. Pp. 246. (\$1.50 — paperback)

This work attempts to set forth the legal rights of patients that are hospitalized. It proceeds to deal with every aspect of hospital admission, treatment, and discharge, and is written with the premise that physicians and hospitals simply don't do enough for patients nor treat them as human beings.

The section on "Legal Actions Patients Can Take" urges readers to "complain about conditions they don't like" and challenges them to take strong legal action to enforce their rights.

The author is the Director of the Center for Law and Health Sciences at Boston University and has presented this book in a legal editorial style which will undoubtedly present difficulties for the very people it is meant to assist. Further, his individual preference for federal law and minority viewpoints on legal matters detracts seriously from any value the book may have. Added confusion is evident when rules of evidence and trial tactics are declared to be legal requirements and substantive law.

The singular shortcoming of this tome is that at the outset it states the impossibility of achieving its desired end in that laws differ markedly from state to state and from state to federal jurisdictions. The end result is inadequacy as a legal text and induced chaos as general reading material.

Vincent A. Maressa, J.D.

**Is It Well With The Child?** Susan Strauss. New York, Doubleday, 1975. Pp. 152 (\$7.95)

This book was written by the mother of a mentally retarded autistic child. There have been other books written by parents of mentally-handicapped children that were primarily devoted to descriptions of the individual child's life style. While this volume is justifiably involved with the behavior, educational, and training problems encountered in handling the author's son, Michael, many aspects of mental retardation are discussed in fairly good fashion. She describes Michael's and the family's difficulties and offers valuable advice for dealing with conditions of the mentally handicapped in general, such as when and where to obtain assistance in diagnosis, the considerations in choice of a day school and a residential school, a description of a typical day for her child at the residential school which can help other parents to orient their thinking on a realistic basis, and brief summaries of the various parents' associations which can offer invaluable help. The author uses hindsight in critical evaluations as to how she could have improved the handling of various aspects of Michael's care.

The book would be of primary value to physicians and health workers who deal with mentally handicapped patients. It would also be of value to all health professionals who have an interest in trying to understand the problems of the parents of these children. The author describes the positive and negative aspects of the professional care that her family received and it is important for workers in this field to be aware of the perceptions of the parents, i.e. consumer evaluation. However, the book will be only of general interest to physicians who do not come in contact with this group of patients.

Three other observations: (1) the title of the book is of biblical origin; (2) brief descriptions of Michael's condition lend themselves to possible diagnosis of untreated phenylketonuria; and (3) the author and her husband did grow apart and divorce, probably because of the chronic strain of caring for Michael. She expresses the feelings about their separation in subconscious fashion with her sub-title which is "A Parent's Guide to Raising Mentally Handicapped Children." It should read "Parents'."

Theodore Kushnick, M.D.

**Magic Medicine of the Indians.** C. A. Weslager. Samersset, New Jersey, The Middle Atlantic Press, 1973

Interest in all aspects of North American Indian life and civilization has shown a remarkable upsurge in recent decades. Not that the folklore of our native aborigines has ever been entirely neglected. Almost three hundred years ago William Penn wrote a sympathetic account of the native inhabitants of his colony and their customs, and a century later Benjamin Rush wrote two tracts relating to the diseases and

unusual practices of the Delaware Indians.

Throughout the nineteenth century many observers, for the most part laymen with no pretensions to scholarship, wrote accounts of the "ethno-botany" of the local tribes and the magico-therapeutic procedures practiced by the medicine man. Most of these studies were fragmentary and led to no definite conclusions.

It was not until 1970 that Virgil Vogel published his comprehensive "American Indian Medicine," now regarded as the standard guide to this fascinating subject. Vogel's work has a worthy successor in the book here under consideration, one which is of particular interest to New Jersey readers because it concentrates on the medical lore of the Lenni-Lenape, an ancient branch of the Algonquins, who inhabited our State and other areas bordering on the Delaware River Basin.

Professor Weslager is a trained historian who writes primarily for the interested layman. He discusses at considerable length the herbs used by the Indians and their ready acceptance by the early settlers; the ceremonial witchcraft practiced by the Shaman; the sweat baths and health springs in which the redman delighted, and many other cognate subjects of interest to students of our early anthropology and culture. Weslager makes no attempt to persuade us of the effectiveness of Indian medicine, but insists that the potions and practices which seem so strange to us were of definite service "at the time and place and under the circumstances in which they were administered."

This excellent and readable book can be recommended to those who have any desire to know the type of medical therapy readily available to our colonial and post-revolutionary forebears who lived in remote, isolated sections of the United States where the services of a trained medical practitioner were simply not to be had.

Morris H. Saffron, M.D.

**Current Medical Diagnosis and Treatment.** Marcus A. Krupp, M.D. and Milton J. Chatton, M.D. Las Altas, California, Lange, 1975. Pp. 1044. (\$13.50)

This compendium is divided according to the usual organ systems, metabolic and nutritional disorders, infectious and malignant diseases, and genetic and immunologic disorders. Under each heading there are given the essentials of diagnosis, general considerations, clinical and laboratory findings, differential diagnosis, complications, and therapy. There is no excess verbosity; discussions are brief but thorough and to the point. The print is legible and the book is sturdy and well bound.

As is the reviewer's prerogative, I will keep the book and put it to good use.

Leo Lewin, M.D.

Support the Society for  
Relief of Widows and Orphans  
(P.O. Box 95, Belleville, N.J.)

# Breast self-examination:

## KEY ROLE OF THE PHYSICIAN

<b>item:</b>	Breast cancer is a major concern of American women, according to a recent Gallup study conducted for the American Cancer Society.
<b>item:</b>	Although aware that early discovery improves the chances of cure, and that BSE can lead to early discovery, <i>fewer than 1 in 5</i> women practice BSE, and <i>only half</i> have an annual breast examination by a physician.
<b>item:</b>	Only 35% of all women polled reported that a <i>physician</i> had ever raised the subject of breast self-examination, and only 24% had received instruction from the physician on how to do it. Even among women who regularly see a gynecologist, only 34% had been instructed on BSE.
<b>item:</b>	<i>But</i> , among women who received personal instruction from their physicians, the overwhelming majority (92%) practiced BSE during the preceding year.

The Gallup study revealed that, far more important than increasing awareness of breast self-examination, is the problem of inducing women to practice it regularly. The physician plays a key role in this—by teaching women the correct technique, and instilling in them the confidence that will assure their continued practice of BSE.

The American Cancer Society gives

major emphasis to breast cancer through research and a vast array of public educational materials, designed to give women life-saving information about the disease. Our latest approach is via a pioneering television film starring Jennifer O'Neill, "Breast Cancer: Where We Are." Where we *will* be in a few years will certainly hinge on our joint efforts.

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In patients with chronic or frequently recurrent urinary tract infections

# Bactrim<sup>T.M.</sup> outperforms ampicillin.

In new multicenter studies a higher percentage of Bactrim-treated patients maintained clear cultures for four, six and eight weeks.

See charts on following page for details of studies.



For chronic cystitis or pyelonephritis evidenced by persistent bacteriuria, frequently recurrent infections or infections associated with urinary tract complications, when infection is due to susceptible organisms.

**Bactrim<sup>T.M.</sup>**  
(80 mg trimethoprim/400 mg sulfamethoxazole)



Before prescribing, please consult complete product information, a summary of which follows:  
**INDICATIONS:** Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris* and *Proteus morganii*.

**Note:** The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections.

The recommended quantitative disc susceptibility method (*Federal Register* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy, "Intermediate susceptibility" also indicates a likely response and "Resistant" that response is unlikely.

**Contraindications:** Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

**Warnings:** Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

**Adverse Reactions:** All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

**DOSAGE:** Not recommended for children under 12. Usual adult dosage: 2 tablets b.i.d. for 10 to 14 days. For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

**Supplied:** Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.



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# In new multicenter studies of patients with chronic or frequently recurrent urinary tract infections

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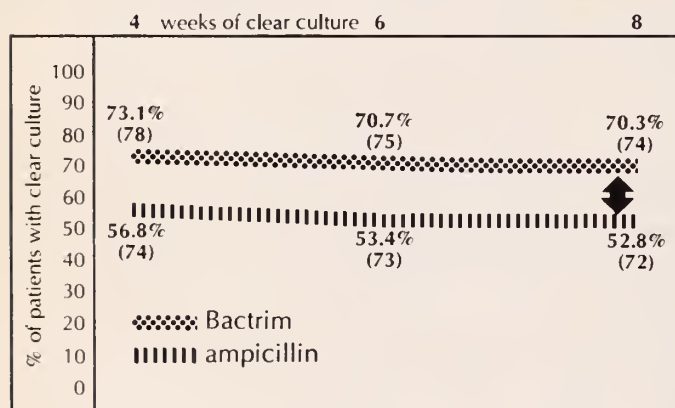
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## Bactrim<sup>TM</sup>

(80 mg trimethoprim/400 mg sulfamethoxazole)

# outperforms ampicillin

**Bactrim vs ampicillin. 10-day therapy. 157 patients.**



Criterion for clear culture: 1000 or fewer organisms/ml of urine.  
Numbers in parentheses: No. of patients evaluated for this time period.

**17.5% The Bactrim plus.**

Patients maintaining clear cultures for 8 weeks

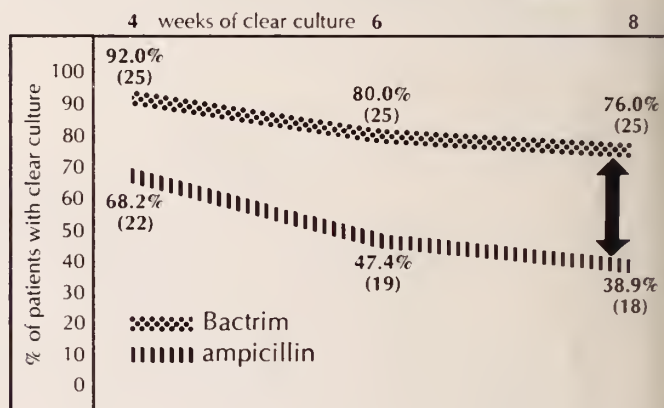
**Bactrim: 70.3%**

**ampicillin: 52.8%**

In two multiclinic, double-blind studies of patients with chronic or frequently recurrent urinary tract infections, Bactrim maintained a higher rate of clear cultures than ampicillin. All patients had "significant bacteriuria" (100,000 or more organisms/ml of urine) on two consecutive pretreatment cultures; many had previously undergone multiple treatment programs and/or surgery. Organisms were *E. coli* and *Proteus mirabilis*.

Side effects were relatively mild (e.g., nausea,

**Bactrim vs ampicillin. 28-day therapy.\* 53 patients.**



Criterion for clear culture: 1000 or fewer organisms/ml of urine.  
Numbers in parentheses: No. of patients evaluated for this time period.

**37.1% The Bactrim plus.**

Patients maintaining clear cultures for 8 weeks

**Bactrim: 76.0%**

**ampicillin: 38.9%**

vomiting, rash), but more serious side effects can occur with the agents studied. Please consult the manufacturers' product information for all warnings, precautions, contraindications and adverse reactions.

\*While the usual therapy regimen for Bactrim is 10 to 14 days, patients with chronic urinary tract infections can be and are treated for substantially longer periods with standard agents such as ampicillin. These studies, therefore, include both 10-day and 28-day courses of therapy. In both studies dosage was one 500-mg ampicillin capsule q.i.d. or two Bactrim tablets b.i.d. plus placebos to make each drug regimen appear identical.

ROCHE

Please see preceding page for summary  
of product information.















